

# BASELINE STUDY

bioRe Association India, Kasrawad, MP

2024-25



## Executive Summary

Organic agriculture has emerged as a powerful alternative to conventional farming, promising environmental sustainability, economic security, and enhanced community well-being. The present study documents the work of bioRe Association India, a key player in the organic farming sector, and its initiatives to support farmers engaged in organic cotton cultivation. The research provides valuable insights into the strengths and challenges of bioRe's approach and highlights the perspectives of farmers regarding their dependence on the organization, income stability, decision-making autonomy, participation in community activities, and self-confidence.

bioRe Association India, in collaboration with Remei India (erstwhile bioRe India Limited), has been instrumental in promoting organic farming in the Nimar region of Madhya Pradesh. bioRe<sup>1</sup>, (as farmers call it), has built a strong reputation by providing farmers with critical resources such as organic seeds, training, certification assistance, and market access. Over the years, bioRe's initiatives have contributed to soil health preservation, biodiversity enhancement, and economic resilience among farmers. However, the transition to organic farming involves numerous challenges, including initial lower yields, limited access to financial resources, and a reliance on bioRe for market support. This executive summary explores these key areas, presenting an in-depth understanding of the organisational approach and the perspectives of the farmers.

For the past 20 years, it was the bioRe sustainable cotton standard that influenced all decisions. The sustainable cotton standard provided the much needed guidelines through its 13 points which brought credibility to the organisation and its products. bioRe foundation is the owner of the brand 'bioRe' and is responsible for upholding the 13 aspects of the sustainable cotton standard which is audited by an independent entity Flo-Cert. These 13 aspects were divided into the economic and social verticals through the bioRe India Limited (now Remei India limited) and bioRe Association respectively. The two entities needed to be integrated to deliver the sustainable cotton standard that upholds the brand bioRe. However, in the past few years there has been a separation and the company bioRe India Limited was sold to Remei AG by the bioRe Foundation. While the farmers are evidently perceiving bioRe as one entity, the company and the Association operate independently.

The main objective of the study was to document all the activities of bioRe Association and to gain farmers' perspectives, their experience with the organisation, and map their needs and aspirations for the future. The baseline study's objective is to facilitate the design and development of the

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<sup>1</sup> Note: In all of the report 'bioRe' refers to both the organisations i.e., bioRe Association as well as Remei India limited (erstwhile bioRe India limited) since the farmers identify bioRe as a single entity. They have not distinguished the two entities with their respective roles so far. Through the farmer interviews they have referred to bioRe as one organisation as it was for the past 20 years.

empowerment strategy for the Association in such a way that it addresses the gap and develops innovative strategies that empower the community and facilitate growth and development in the region of Nimar.

## Key findings

### Strengths of bioRe's<sup>2</sup> Initiatives

One of the significant advantages of bioRe's initiatives is its **comprehensive farmer support system**. Farmers receive organic seeds, training, and technical guidance that help them transition from conventional to organic farming with confidence. The three-year purchase guarantee ensures financial security by reducing the uncertainties of market fluctuations. Extension officers and advisory visits further assist farmers in troubleshooting issues related to pest control, irrigation, and soil fertility.

bioRe's commitment to **sustainability and best agricultural practices** is another strength. bioRe encourages farmers to adopt eco-friendly methods such as crop rotation, intercropping, and biodynamic calendars for optimal sowing and harvesting. These practices not only improve soil health but also increase long-term productivity. Research initiatives, particularly on non-GMO seed development and organic pest control solutions, have further strengthened bioRe's contribution to sustainable agriculture.

Farmers express strong trust in bioRe due to its **assured market access and premium pricing structure**. Unlike conventional cotton farmers who often face price volatility and exploitation by middlemen, bioRe farmers benefit from fair trade principles. Collaboration with organic certification bodies such as Ecocert and Aditi Organic Certification has enhanced the credibility of bioRe's organic model, giving farmers confidence in their participation.

Beyond agriculture, bioRe's **community development initiatives** play a crucial role in improving the lives of farming families. The provision of mobile health units, education programs, and vocational training for youth has enhanced social well-being. bioRe's emphasis on training ensures that farmers acquire knowledge about organic cultivation, financial management, and sustainable farming techniques, which further strengthens their independence. It is this comprehensive approach of addressing both social as well as economic needs that has led to bioRe being a well reputed organisation in the region.

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<sup>2</sup> Note: Same as above

## Challenges

Despite these strengths, the study reveals several critical challenges that bioRe and its associated farmers face. One of the most significant concerns is **farmer dependence on bioRe for resources and market access**. Many farmers are reliant on the bioRe for organic seeds, certification, and guaranteed procurement, raising concerns about their long-term self-sufficiency. As one farmer stated, *“If bioRe does not provide seeds or stops buying cotton, we will be in trouble. We do not have alternative buyers who pay us fairly.”* This over-reliance limits farmers’ ability to explore independent market opportunities or alternative sources of organic seeds and financial support.

**Financial sustainability:** While organic farming reduces input costs by eliminating chemical fertilizers and pesticides, yields tend to be lower not only in the initial years of transition but also after full conversion. Farmers expressed concerns over the reduction in premium payments from 25% to 15%, with one farmer remarking, *“Even if the premium is less, the price should be double. Before, I got a 25% premium, which helped me buy a tractor. If the premium was still high, I could pay off my loans faster.”* These financial constraints make it difficult for farmers to expand their organic farming activities or invest in essential agricultural infrastructure. Furthermore, the second crop that is organically cultivated is not being branded/ certified as organic and is sold at normal prices. Most farmers have to seek markets for the second crop.

The study also highlights **limitations in decision-making autonomy** among farmers. While bioRe promotes participatory decision-making, many farmers, insofar as cotton cultivation goes, still depend on advisory staff for crucial choices regarding seed selection, pest control, and land management. Women farmers, in particular, face barriers in having an equal say in agricultural decisions. A farmer shared, *“At first, I had no idea how to choose the right seed or manage my farm, but after attending bioRe’s training, I feel more confident in making these decisions on my own.”* However, gender disparities persist, and more efforts are needed to integrate women into leadership roles within farming communities.

**Farmer participation and representation** remain uneven across demographic groups. Although training sessions and farmer committees are intended to encourage democratic engagement, not all farmers feel adequately represented. Limited access to digital tools and market intelligence prevents some farmers from making well-informed decisions regarding sales and crop diversification. One farmer noted, *“They hold meetings, but only a few people are allowed to speak. Many times, our concerns are not fully addressed.”* Strengthening participatory structures can enhance engagement and ensure that all farmers, regardless of socioeconomic background, have a voice in program development. Furthermore, with respect to gender parity, women who contribute significantly to organic cotton cultivation do not have adequate education or agency to make decisions pertaining to organic cotton farming. Bringing **women’s empowerment** to the fore through training and creating women's collective and supporting women’s entrepreneurial

initiatives overtime would not only reflect in the empowerment of the family but also the community at large.

Another key challenge identified is **the need for improved seed quality and agricultural inputs**. Farmers expressed a demand for higher-yield, early-maturity organic seed varieties that can compete with conventional counterparts. Some also feel that bioRe should provide ready-made organic fertilizers and pest control solutions to reduce their workload. A farmer stated, *"The issue with seed is that it should be very nice. Production should come very nicely."* Addressing these concerns through enhanced seed research and extension support can help bridge the productivity gap between organic and conventional farming.

Lastly, **training and knowledge gaps** continue to hinder the full potential of organic farming. While bioRe provides extensive training, some farmers suggested incorporating more hands-on, field-based demonstrations and exposure visits to successful organic farms. Financial literacy training also emerged as a key area for improvement, as many farmers struggle with managing savings and investments effectively. One farmer suggested, *"Training should be in the field, and it should be practical. It is better than just verbal instructions."*

### **Farmer Testimonials: Voices from the Field**

The study captures diverse farmer experiences, reflecting both positive and challenging aspects of organic farming. Farmers who have been engaged with bioRe for several years acknowledge the benefits of organic agriculture. One farmer shared, *"We are with bioRe because they provide seeds, training, and purchase our cotton. They show us the benefits step by step."* Another emphasized, *"The premium helps us cover expenses, and organic farming keeps our soil fertile."* Such testimonials reinforce bioRe's role in improving farmer livelihoods through sustainable practices.

However, not all experiences are uniformly positive. Some farmers highlighted financial concerns and market constraints, particularly regarding seed quality and certification. One farmer expressed frustration, *"We do not have an organic certificate; we only have an agreement copy. This limits our ability to sell other organic crops."* Another suggested, *"bioRe should help us market other crops beyond cotton. Otherwise, we cannot fully benefit from organic farming."* These perspectives illustrate the need for a broader market approach that extends beyond cotton cultivation.

### **Conclusion**

The findings of the study indicate that bioRe has made significant strides in advancing organic agriculture and improving farmer livelihoods. Its structured approach to training, certification, and market facilitation has built trust and reliability among farmers. However, the long-term success of organic farming depends on addressing key challenges such as farmer dependence, financial

sustainability, decision-making empowerment, and market diversification. While organic farming presents a viable alternative to conventional methods, continued efforts in research, education, and economic development are necessary to ensure that farmers achieve long-term prosperity.

With a holistic and inclusive strategy, bioRe and specifically bioRe association can further empower farmers by fostering greater independence, enhancing financial literacy, improving seed quality, and creating diversified market opportunities. Strengthening these aspects will not only improve the effectiveness of bioRe's initiatives but also contribute to a more resilient and self-sustaining farming community.

## Acknowledgements

The successful completion of this baseline study would not have been possible without the support, dedication, and contributions of several individuals and organizations. We extend our deepest gratitude to all those who played a role in making this study a reality.

First and foremost, we express our sincere appreciation to Nicola Roten, CEO of bioRe Foundation, for her invaluable leadership and unwavering support throughout the study. Her vision and commitment to sustainable agriculture and farmer empowerment have been instrumental in guiding the objectives and direction of this research. We also extend our heartfelt thanks to Aashish, COO of bioRe Association India, for his strategic guidance, insights, and continuous encouragement. His deep understanding of the region's agricultural landscape and community dynamics significantly contributed to the depth and relevance of this study.

We acknowledge with gratitude the dedicated efforts of the research team members—Hidayat Khan, Suresh Verma, Gayatri Solanki, Rakesh and Chinmaya—who worked tirelessly to collect, analyze, and document crucial data. Their diligence, patience, and perseverance in engaging with farmers, understanding their challenges, and compiling meaningful narratives have greatly enriched this report. Their ability to navigate logistical challenges and conduct thorough fieldwork has provided an accurate and holistic representation of the farming communities involved. A special acknowledgement to the Empowerment Team of bioRe Association (Yogendra, Ishwar Patidar, Karmaji, Mahesh, Reena Tak, Dr. Shahina, Jitender) , whose relentless efforts in multiple ways have been invaluable in this study. We would also like to extend our appreciation to all the individuals who played a crucial role in transcribing the collected data. Their meticulous efforts in translating and documenting the interviews and field research ensured accuracy and clarity in the analysis process, making a significant contribution to the overall study.

Additionally, we extend our sincere gratitude to all the farmers who generously gave time for the study and shared their experiences, insights, and challenges. Their openness and willingness to participate in this study have provided critical firsthand perspectives that form the backbone of this research. Their resilience, dedication to organic farming, and commitment to sustainable agriculture serve as an inspiration for the continued efforts toward empowering farming communities.

We would also like to extend our heartfelt appreciation to Vivek Rawal, CEO of Remei India Limited, and specifically Lokendra and the extension officers team for their invaluable support and cooperation throughout the study. Their contributions in facilitating access to key data and resources played a crucial role in ensuring the comprehensiveness and accuracy of this baseline study.

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## Introduction

bioRe Association India, located in Kasrawad, Khargone District, Madhya Pradesh, India, a registered society under MP society Registration Act 1973, was set up in 2003 - 04 to support farmers to grow organic cotton. The organization was established to provide knowledge and skill to facilitate organic cotton cultivation. bioRe Association India is a local partner of bioRe Foundation which is headquartered in Switzerland. bioRe Association India works primarily on the aspects of training, participatory research, and generating awareness through encouraging and educating farmers on the ways/ methods, techniques and strategies that can be employed for organic cotton cultivation. bioRe Association also works on other Human Development indices like Education and Health. The association has been working in the Nimar region of Madhya Pradesh for the past 20 years and hopes to continue its work towards the empowerment of the farmers and provide opportunities for holistic development.

**About bioRe Foundation:** Patrick Hohmann, founder of Remei AG, a yarn and textile trading company from Switzerland, along with Jurg Peritz of COOP, a retail chain in Switzerland, set up the bioRe Foundation in 1997. The foundation's objective is “to provide support in organic cotton farming to farming families in Tanzania and India, enabling them to improve their livelihoods in a sustainable manner. The Foundation creates room for development, supports productivity and organic variety of agriculture, and takes care of the basic needs of farming families.” The foundation provides a platform for holistic development and social responsibility practiced by all parties involved. The foundation is committed to:

- *promoting organic and biodynamic farming of cotton in India and Tanzania;*
- *raising and diversifying the income of farming families;*
- *preserving and improving ecosystems;*
- *ensuring elementary education and continuous further training;*
- *providing health care; and*
- *providing water, sanitary facilities and hygiene.*<sup>3</sup>

bioRe Foundation became the key funder to bioRe Association, in India and Tanzania, for all its activities. In 2005-06, the Remei AG private limited offices in India and Tanzania, also known as bioRe India Pvt. Ltd. and bioRe Tanzania Pvt. Ltd were brought under the ambit of the foundation.<sup>4</sup> In 2020, the two private limited companies were sold back to Remei AG. bioRe Foundation now focuses on supporting bioRe Association and Remei private limited in India and Tanzania to achieve its objective. This baseline report specifically focuses on all activities of bioRe Association India. However, from the farmers perspective, the baseline study does cover all aspects pertaining to the

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<sup>3</sup> <https://biore-stiftung.ch/en/wer-sind-wir/>

<sup>4</sup> <https://biore-stiftung.ch/en/history/>

farmers needs which also includes the activities that are being undertaken by Remei (erstwhile bioRe India Limited) particularly since the farmer is perceiving the organisation as one entity as bioRe rather than perceiving it as two separate entities.

**bioRe Association India's** vision is to *empower organic and biodynamic farmers communities by facilitating education and promoting infrastructure, addressing local needs to holistic as well as sustainable development.* Over the last 20 years bioRe Association India has undertaken several initiatives within the region under one umbrella and in the recent past the programmes were categorised into components. The intention of doing this was to streamline various projects of the organization and have a systematic approach to each component with respect to its intent, strategy, delivery mechanism, monitoring, evaluation and learning, management of funds and its dissemination and responsibilities. Streamlining each of the initiatives within bioRe Association was critical in being more attractive to future funders as well as making long term strategy planning as well as day to day activities more convenient to manage. The empowerment team developed this mechanism to ensure efficiency and effectiveness of their programmes. Each component contributes deeply to the needs of the farmers while keeping in mind the vision of the organization.

The various components developed in the past one year are mentioned below.

1. **Organic Agriculture:** Focuses on all the aspects pertaining to organic agriculture. Specifically, this component focuses on research and development, on seed research and development, and training of the farmers are three main components creating inputs that support organic agriculture to not only protect the plants from pests but also improve productivity. It also looks at developing and disseminating training to the farmers. During the time of this study being conducted, bioRe Association was managing the agriculture component (particularly since all the employees were in the bioRe Associations payroll). However, conversations pertaining to institutional division of responsibilities between bioRe Association and Remei are still in progress. The study was conducted independent of the division of responsibilities.
2. **Education:** This component focuses on providing basic education to the remote areas of the district through its Animation Schools; it also provides access to affordable education through its bioRe Public School and its vocational training centre that provides skill development to youth.
3. **Health:** It provides access to basic healthcare with diagnostic facilities through its Mobile Health Unit.
4. **Farmer Participation:** It is a democratic system that has been developed to improve farmer participation in the Association where important decisions are made by the farmers.
5. **Entrepreneurship:** This component explores the various potential initiatives that can contribute to improving income diversity and opportunities for the household.

6. **Innovation:** This is a relatively new component that commenced in 2023 where it focuses on the digitisation of farm data and developing a system that facilitates informed decision making. Each programme commenced independently and were all taken up to address and respond to the needs of the community in an attempt to provide holistic and sustainable development.

## Background

bioRe Association was formed with the intent of executing fair trade with Human rights as a core value for the funding organisations that engage with the farmers to produce organic cotton. The association was created to empower the farmers, educating them with the technology and approaches to cultivate organic cotton alongside forming collectives and creating complementary support systems that would empower them in the long term. In that regard, bioRe has undertaken several initiatives over the years under various components mentioned above. These initiatives have definitely had an impact in a myriad of ways. So far, the communities have been availing benefits of the various programmes that are being undertaken in each component and there is a transformation that can be perceived.

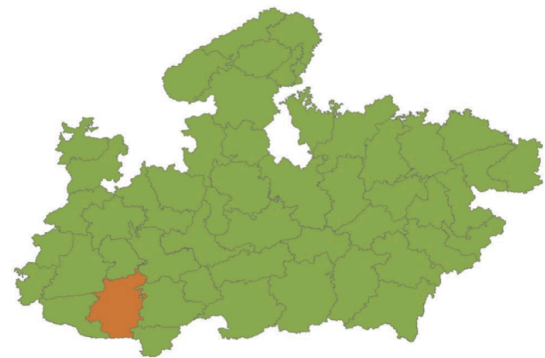
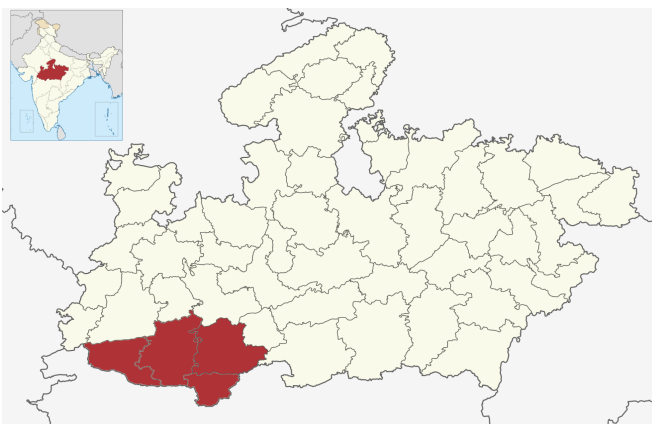
However, this has not been captured and mapped in a systematic manner so far. Therefore, this study is an attempt to collate all the necessary aspects of the operations and capture the perceptions that the farmers have on the programmes that the organization has been delivering over the years. The study will also facilitate understanding the strengths, weaknesses, limitations and aspects that can be celebrated within the organisation. Considering the new laws pertaining to ESG reporting, it would be preferable to undertake this study to be able to map the entire value chain and the efforts undertaken on the same. It would be critical for the association to be able to build on its efforts, re-strategise if required to maximise its effectiveness and efficiencies. The study will also help connect directly with the farmers and understand the extent of empowerment programmes that can be undertaken to complement the current efforts of the association. In all, this study will be timely and will help develop a new strategy in an integrated and systematic manner for bioRe Association 2.0.

## Context: About Nimar Region

bioRe Association India operates from Kasrawad Tehsil in Khargone District, Madhya Pradesh, India. The main area of operations for the organisation is in the Nimar region of the state of Madhya Pradesh. The operations of Remei India limited (erstwhile bioRe India Limited) is primarily organised in four Zones - Maheshwar Zone, Kasrawad Zone, Nimadi Zone and the others zone which includes Rajgarh, Bilali and Sirpur areas in Maharashtra. bioRe Association India also focuses its programmes within the same zones complementing the work of Remei.

This section gives a context of the region in that an insight into the demographics, soil conditions, and socio-economic aspects of the region.

The region primarily lies in the south side valleys of Vindhya Range and Satpura range along the Narmada and Tapti rivers. Nimadi is the language that is spoken in this region. Until recently, most of the land was barren and was practicing rain-fed agriculture. However, in the past few years, due to the provision of dams and canal irrigation systems by the government, river water is being accessed in the interior regions of Nimar. This has led to the farmers planting multiple crops within an annual cycle. The images below provide key insights into the region. The Nimar region (Khandwa, Khargone, Kukshi and Manawar tehsil) is endowed with medium black soil that is clayey (about 20 -60%) and has a depth of about 1-2 meters. Soybean and cotton are the most suitable



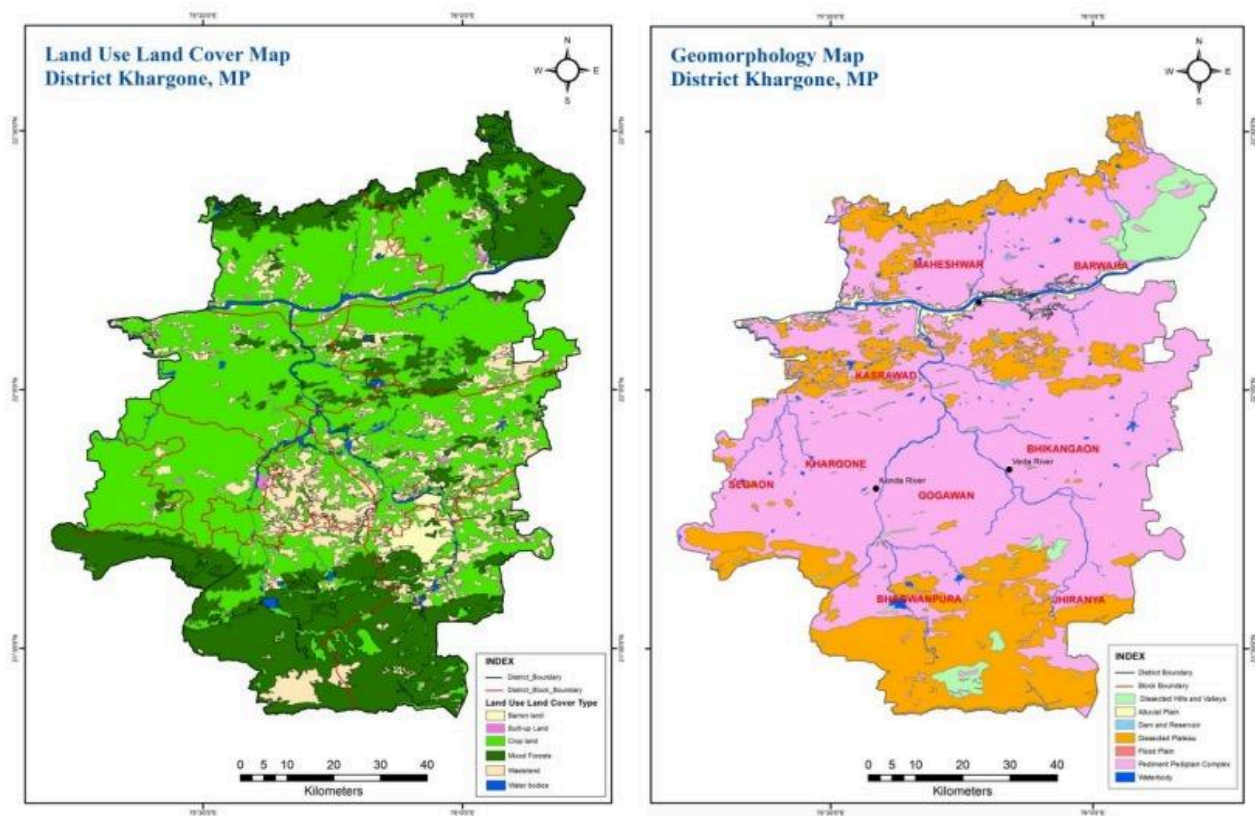
crops since the soil has a lot of iron (which gives it the black color) and lime which increases moisture retention with medium fertility level. The region receives is about 80-100 mm<sup>5</sup> of rainfall annually. The maximum temperature in summer is 47.9 degrees celsius with summers being extremely hot and dry along with the ‘Loo” (hot and dry winds) blowing in the summer months. The monsoons arrive late June and winters commences mid-November with temperature ranging from 4-15 degrees celsius.

If we specifically look at the Khargone district<sup>6</sup>, the total geographical area is 8,03,000 hectares/ 6477.89 square.km with 9 blocks (Kasrawad, Bhagwanpura, Segaoon, Bagwah, Bhilngaon, Jhirnaya, Maheshwar, Khargone and Gogaon). The land use land cover map clearly showcases the extent of land that is being cultivated. The built up area is marginal compared to the cropped area and forest areas. Furthermore, the cropped area is composed of pediments and pediplains which occur primarily in arid and semi-arid areas.

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<sup>5</sup> <https://mphorticulture.gov.in/en/nimar-plains>

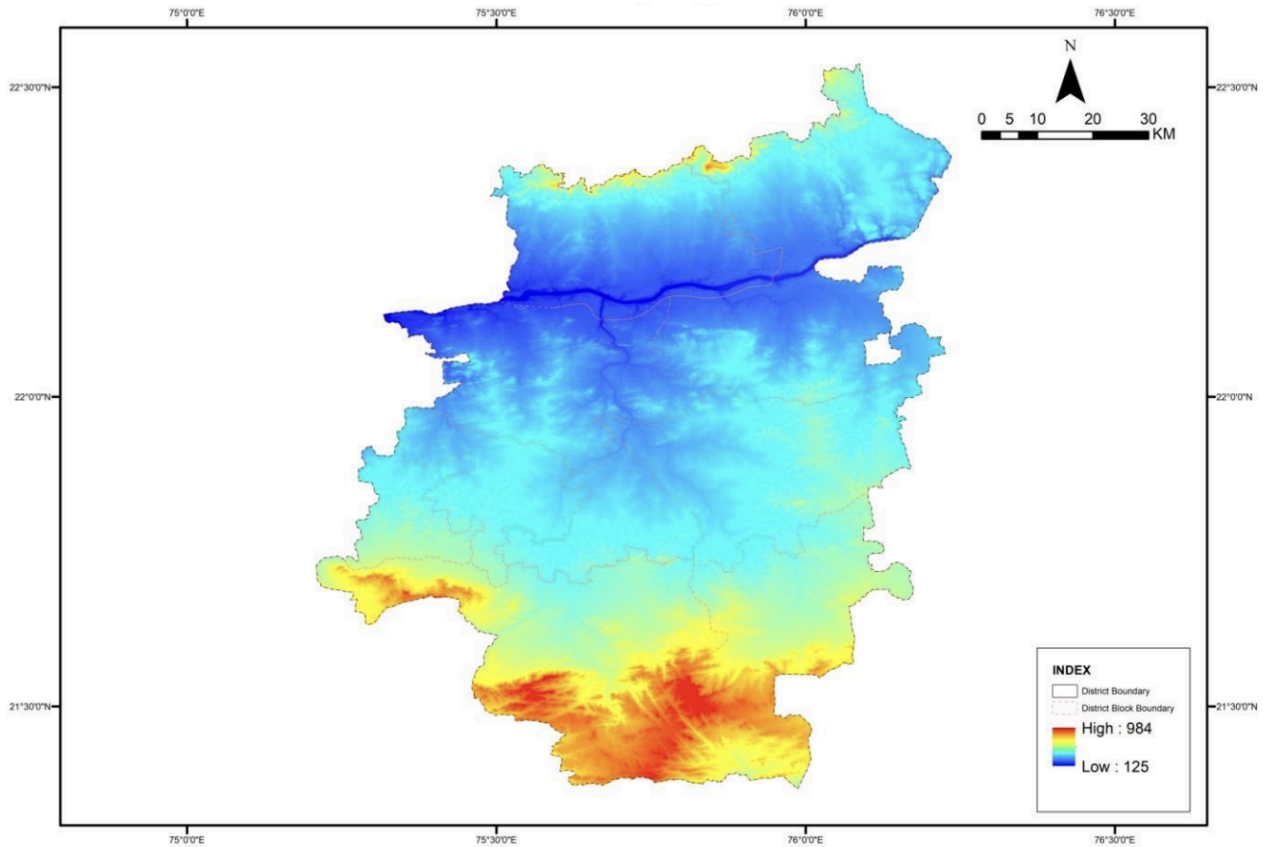
<sup>6</sup> [https://www.cgwb.gov.in/old\\_website/District\\_Profile/MP/Khargone.pdf](https://www.cgwb.gov.in/old_website/District_Profile/MP/Khargone.pdf)



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The net sown area is 405,670 hectares with 534,710 hectares as gross cropped area along with a forest area of 168,500 hectares. About 175,539 hectares of land is irrigated through various sources of Dug wells, tube/ bore wells, tanks/ ponds and canals. The principal crops in the region are cotton, groundnut , wheat, gram, towards and Jowar. Cotton, known as white gold, a cash crop, is sown in 2,15,000 hectares in Khargone district alone. The image below clearly indicates the slopes of the land within the districts and how the ecosystem supports the crop cultivation.

<sup>7</sup> [https://www.cgwb.gov.in/old\\_website/AQM/NAQUIM\\_REPORT/MP/Khargone%20MP.pdf](https://www.cgwb.gov.in/old_website/AQM/NAQUIM_REPORT/MP/Khargone%20MP.pdf)

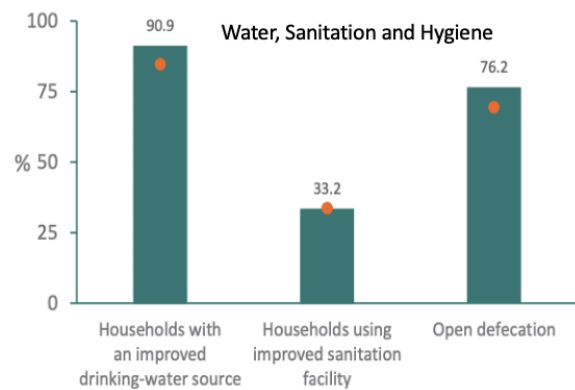
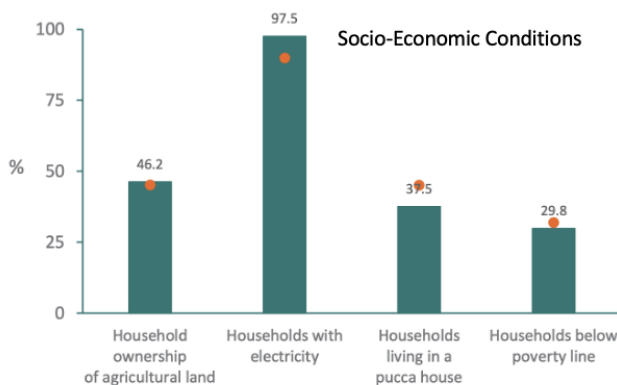
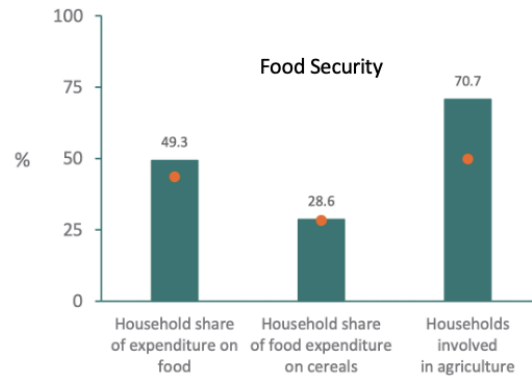
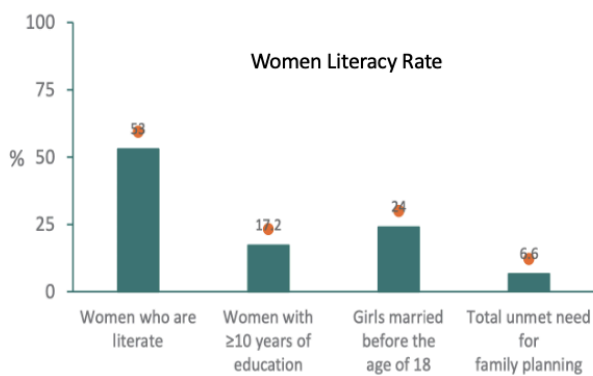


## Demographics

Khargone district has 1421 villages with a population of 18,73,046 (as per 2011 census) with 2,98,955 persons living in urban areas. The gender ratio is 965 with 9,53,121 male and 9,19,925 females. The average literacy rate in the district is 62.7%<sup>8</sup> and 13% of the population is under 6 years of age. Hinduism is the majority religion followed in this region with over 92.12% of the population are Hindus.

The tribal population here is significant in that they constitute 38.98% (730,169) of the population of the district. Bhil, Bharia, Bhilala are some of the tribes in this region. The scheduled caste population is 11.2% (209,091) implying that almost 50% of the region is populated either by scheduled tribes or scheduled caste people. Only 48% of the population are working of which about 15% are cultivators and 17.7% are agriculture labourers in the state. About 52% of the population falls in the non-working category in the district.

<sup>8</sup> <https://www.censusindia.co.in/district/khargone-district-madhya-pradesh-440>



■ Khargone ■ Madhya Pradesh

Only 51% of the women in this region are literate and about 15% of the women have more than 10 years of education therefore the women in the household are not having the adequate education to pursue new income opportunities. According to the POSHAN report, it ranks 400 out of 599 districts with respect to nutrition levels in India clearly indicating lack/ reduced levels of nutrition for several people. Close to 30% of the population lives below the poverty level<sup>9</sup> in the state as well as the district of Khargone and 62.5% of the people live in Kuchai houses. Increasing efforts towards generating awareness on government schemes and processes for housing and infrastructure development both at an individual family level to the community level is required for this region.

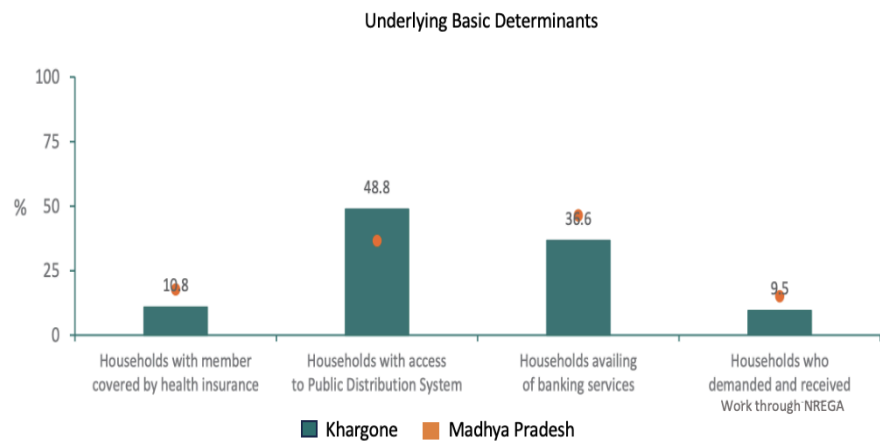
About 70% of the population is involved in agriculture and about 50% of the income is spent on food which is significant. Income for other purposes of housing, services, education and leisure is limited to 50%. Due to these reasons, investments in improving housing conditions, access to sanitation facilities, clean potable drinking water, access to public transportation facilities through

<sup>9</sup>

<https://cgspace.cgiar.org/server/api/core/bitstreams/6b8acc21-4c19-4a34-9e5e-6d1719d902c8/content>

roads from remote areas, access to education, access to adequate healthcare are some key aspects that need to be focused in this region.

The graph of underlying basic determinants imply that the socio-economic conditions of the people living in this region are dismally low. The POSHAN report clearly informs that just about 10% of people are having health insurance which is really low keeping in mind the escalating costs of medical services



particularly in the light of the recent pandemic. Furthermore, less than 50% of the people are covered under the Public Distribution system and less than 10% have access to NREGA work in the region. Several areas of development sector work needs to commence in order to bring the region at par with the state as well as to the rest of the country. Basic amenities are yet to reach this region. Standard of living and socio-economic indicators have to be bolstered manifold for the region to prosper.

To summarise the key concerns of the region

- Education, particularly of women (true capabilities of educated persons also must be bolstered)
- Being a tribal belt, and where almost 50% of the population belongs to the backward section, the region needs special attention
- Lack of Employment opportunities thereby impacting income
- Lack of an optimal ecosystem for Entrepreneurial activities
- Lack of adequate Physical and social infrastructure

In all, there is a need to increase socio-economic and infrastructural initiatives and nutritional aspects for the people in the region besides focusing on furthering efforts in organic cotton cultivation.

## About the Baseline Study

A baseline is being undertaken to bring in a renewed energy for addressing the needs of the farmers keeping in mind the existing capabilities and infrastructure (both hard and soft) that is available within bioRe Association. The baseline study is documenting and inferring the existing capacities within the organisation along with trying to understand the extent of engagement with the farmers through the various programmes. The study will document the current practices and processes that are being employed in undertaking the programmes. It will also look at understanding the gaps and potential opportunities in delivering an empowerment programme to the community through sustained and strategic efforts. The baseline will gather the thought processes, attitudes and behaviours of the farmers. This study is to provide a basis for developing an empowerment strategy and provide a basis for comparison in the future. It can also be used as a point from which progress can be measured in the future.

## Objectives of the study

1. To comprehend the various activities that has been undertaken by bioRe association under taken at each component separately
2. To map the institutional infrastructure particularly soft infrastructure that drives the execution of the various programmes.
3. To document the accessibility of the organic farming communities towards the various activities that are associated with bioRe Association.
4. To gain insights into the experiences of organic cotton farmers within the bioRe/Remei partnership across each of the six program components.
5. To understand the aspirations, challenges, and needs of the farming community within each program component to inform targeted program development.

## Scope of the Study

The scope of the baseline study will be limited to the bioRe association and its activities/ programmes. The study will focus on the same geographical region (primarily the Nimar Region and specifically the four zones) in which Remei India (erstwhile bioRe India limited) is operating and is limited to the farmers who are associated with that organisation and is practicing organic cotton farming. The study is not measuring the impact of the programmes but is mapping the programmes and gaining farmers perspectives on the same.

## Study Methodology

This section discusses the methodology adopted for the study including design, methodology adopted for the evaluation study, the tools employed, and the study procedure.

### Study Design

In order to comprehensively establish a baseline for the activities of the organisation, the study was divided into two parts for its data collection process. Objective 1 and 2 focuses on the institutional aspects of bioRe Association India and its means and processes in delivering the programme. Objective 3,4 5 focus on the narratives from the farmers where they share their experiences of engaging with bioRe Association and their aspirations, challenges and needs.

Therefore, for the efficiency and coherence of the data, the study was divided into two parts. Part 1 focused on objective 1 and 2 where the personnels working within bioRe Association and Remei were interviewed. Here the focus was on the processes employed by the employees of bioRe association in delivering the myriad projects and programmes that are being undertaken by the organisation.<sup>10</sup> This will give a clear understanding of the processes, policies and strategies involved in implementation. For this part, indicative questions were prepared and an unstructured interview was conducted with selected personnels. The COO identified the persons who need to be interviewed for this part of the study. A list was prepared and shared, attached as an Annexure 1. See Annexure 2 for the questionnaire for part 1. This was used to undertake in-depth interviews with the stakeholders. The interviews were conducted using an unstructured method primarily because the attempt was to ensure that the information was shared with ease and comfort where one response leads to the next question.

Besides the above method, during the field visits to Kasrawad, observation of the infrastructure was undertaken by the consultant. Desk Research of all the documents that were shared by the association was undertaken to understand the organisation further.

In Part 2, objectives 3,4 and 5 were addressed and for this part, in-depth interviews of the farmers were undertaken. About 33 farmers for the four zones of operation were selected based on the below mentioned criteria. The entire process adopted for part 2 is discussed below.

### Data Collection and Analysis

The study relies heavily on qualitative data to understand the narratives of the people who are engaged with bioRe. In-depth interviews were the chosen mode of data collection.

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<sup>10</sup> It is important to note that the baseline is not measuring the impact or assessing the efficiency or effectiveness of the processes, policies and practices of bioRe Association. It is simply documenting the same for the study. It is validating the same from the employees and sharing here in this report.

Desk research pertaining to all the necessary documents of the project, final reports etc. were undertaken to fill in the gaps. Information from the documents shared for desk research is also processed and analysed for the baseline.

## Data Sampling

A purposive sampling of the key personnels and the farmers was undertaken to ensure that all areas (geographically, institutionally) are being covered. The farmers are being identified regionally and the process is described below.

### Selection of farmers

- The farmers list (associated with Remei) of each zone was requested from Remei - Kasrawad, Maheshwar, Nimrani and Others (Rajgarh, Sirpur and Bilali)
- Based on the percentage of the farmers present in each zone the number of farmers to be selected for the same is deduced

Zone	Number of farmers	Percentage	Farmers selected from each zone
<b>Kasrawad zone</b>	479	25%	10
<b>Maheshwar Zone</b>	542	28%	10
<b>Nimrani zone</b>	330	17%	6
<b>Others Zone</b>			
<b>Rajgarh</b>	303	15%	2
<b>Sirpur</b>	235	13%	4
<b>Bilali</b>	50	2%	1
<b>Total</b>	1939	100%	33

The farmer selection criteria was based on the following

1. Gender based selection; in the larger list of over 1939 farmers, there are only 48 women farmers that are registered with Remei. Furthermore, in the list shared by the Remei team, there was no clear demarcation of male or female farmer, however, the facilitator had to cross check between the two lists shared to ensure female farmers are made a part of the selected farmers that are being interviewed.
2. The next selection was based on the Marginal, Small, medium and large farmer criteria. Therefore, information pertaining to the total land a farmer owned was important for this criteria. This information had to be requested from the Remei team.
3. The third criteria was based on the categorisation of the farmers as a New conversion and registration, during conversion both first year and second year and fully converted farmer. This

categorisation informed the number of years of association and the present stage at which the farmer is his organic farming cycle.

4. At the inception, there were few other parameters (such as age, caste, family size etc.) of including other selection criteria, however, due to the absence of parameters/ data it was not possible to include that in the selection criteria.

The bioRe Association India team was trained to administer the questionnaire and the interviews were conducted by Mr. Hidayat Khan, Ms. Gayatri and Mr. Suresh. Ms. Chinmaya was making notes of the responses that were being given by the farmers. All the interviews were recorded by the team and are available for reference.

## Preparing the Questionnaire

The process involved for the preparation of the questionnaire was as follows

- There were two focus group meetings that were organised as preparation for the questionnaire. The team at bioRe Association organised the meetings and conducted the FGD's.
- In the first group, the team members of the Empowerment program came together to reflect on the key aspects of the empowerment program and the key concerns they had for addressing the strategy of the programme. They came up with several concerns that need to be enquired from the farmer and made a list of potential questions that can be a part of the questionnaire. The questions are attached in the Annexure.
- In the second focused group discussion several farmers were invited to participate of which 12 farmers proactively participated and discussed key concerns within their operations and the link with bioRe and helped provide indicative questions for the questionnaire.
- This was thereafter assimilated and under each component a detailed questionnaire was prepared and was shared with the bioRe empowerment team.
- There were several recommendations and suggestions that were shared by the Empowerment team and the questionnaire further revised, updated and finalised.

The questionnaire is attached in Annexure 3.

## Study Tools

Data collection tool	Details
Observation and Field Visit	Visiting bioRe Association office in Kasrawad, looked at the existing infrastructure and amenities that are provided

Key informants interviews	Conducting Indepth interviews with the Key personnels within the bioRe Association that are responsible for the various components
Indepth Interviews	Conducted Indepth interviews with the Key farmers that are a part of the bioRe Association

A consent form was prepared to ensure that the farmer is clearly made aware of the intention of the baseline study and the farmer is made to sign on the consent form before the interview commences. The interview was undertaken roughly for a period of 3 hours where the team tries to address as many questions as possible in order to capture the farmer stories. Most of the farmers spoke in the local dialect of Nimadi and this needed to be transcribed first into Hindi and then into English for coding and for further analysis.

- A team within bioRe association was put together to facilitate the transcription of the interviews. The team was trained by the consultant and research assistants on how to go about the transcription. The list of the team members are provided in the Annexure.
- The transcription team listened to the audio files and thereafter wrote down the translation. In order to ensure there is no bias They were clearly instructed to clearly write down the exact translation of the farmers words from Nimadi into Hindi.
- Thereafter, the Hindi translation was once again translated into English language and has been updated as a document in a digital version for further analysis.
- For ease of comprehending the report, part 1 and 2 as mentioned above have been presented together under the various components. This provides clarity and presents information succinctly.

## Timeline of the study

The study was conducted over a period of six months + 1 month extension (10-06-24 to 30-01-2025), starting from developing and finalising qualitative data collection tools including the questionnaire/ assessment framework for in-depth interviews for multiple stakeholders and writing the final baseline report.

## Limitations

The part 1 of the research focuses on the institutional capacities and in assessing the existing strengths and weaknesses, opportunities and threats. For this, looking in detail at the aspects of human resources, administration and institutional stock, the processes involved, the financial

aspects, strategy knowledge, programme delivery, partnerships, collaboration and support networks were essential for the research. However, this study limits itself to a scope of assessing the aspects except for financial management and program delivery (which will be covered in part 2 to a certain extent).

Venturing into the aspects pertaining to salaries, compensation, budgeting of the projects, annual budget for the association etc. has not been undertaken in this research although aspects that came up in the interviews have been included. Furthermore, this research is not a monitoring and evaluation exercise that is vetting the program delivery and its impact. As mentioned above, the baseline study is primarily looking into the SWOT analysis and is attempting to provide clear information for developing a strategy for implementation in the near future.

The transcription of the interviews are truly basic and the consultant had to work with what was shared by the team, even if more information was shared, the main limitation is that the research analysis was based on the handed over English transcriptions.

## Challenges

- A. The bioRe Association team did not have the list of farmers and their details. Remei India (erstwhile bioRe India Limited) was requested to share the list with the team. A master list was shared with some information, however, it did not have adequate information for the shortlist. A meeting with the Production manager - Mr. Lokendra was necessary to explain the need for the information required before the list was shared with bioRe Association team. This process took a certain amount of time for follow up before the information was received.
- B. Lack of a full time Research Associate who is a Local and is qualified to undertake the task of Data Collection in Kasrawad led to increase in the time spent on ground by the consultant.
- C. Working with a team that did not have adequate skills of reading, writing or typing in English was a huge challenge since it was established from the beginning that the report will be in English and there was not even a single resource who could write in the language with a mid-level quality. Furthermore, lack of computer skills with the research assistants; only one of the three persons could type very basic level of English.
- D. Aligning time with farmers and also factoring travel time implied that we could not do more than one interview per day. Time taken for this study for far more than we had budgeted.
- E. Most of the farmers spoke in the local dialect of Nimadi and this needed to be transcribed first into Hindi and then into English. The process was exhausting since the interview lengths were long and the process involved listening and writing at the same time.

## Research Analysis

Keeping in mind the objective of the study which is to establish a baseline for the organisation in that it intends to document the various programmes and the methodology adopted to implement the same. Alongside, the baseline also is attempting to gain perspective of the farmers who are engaging with bioRe as an organisation. It is mapping the current scenario of the farmers along with their needs, their challenges and risks that they are taking while practicing organic cotton farming. The research methodology will be one of inductive research where a series of observations will help develop general conclusions and theories. A bottom-up reasoning process will be used to arrive through the research analysis.

Atlas Ti software is used for the research analysis. Data Reduction will be undertaken and the data that has been transcribed from Nimar to Hindi and then English were coded as per the key indicators for empowerment. 19 key codes were identified to categorise the document for analysis. There are over 1409 coded quotations in Atlas Ti for the research analysis. Code names are listed in the Annexure 4. This will facilitate ease of analysis and also vividly indicate the frequencies of repetition of key concerns. Pattern recognition and categorisation through content analysis and thematic analysis; and causation will be induced from the data, highlighted and shared through the analysis. While this process could be used for Grounded theory, in this case, since it is a Baseline Study, inferring theories through this research will not be included. A different study must be conducted for the same.

## Indicators for Baseline Study

The inception of the study was done with the intent of developing an empowerment strategy for the organisation based on the needs and aspirations that emerge from the farmers. The findings of the baseline will be used to address necessary improvements to the existing programmes and develop new programmes to bridge the gap between the sustainable cotton standard and farmers needs. For the same purpose, the baseline study has identified five indicators.

1. **Dependence:** This implies the extent of dependence on the organisation in various aspects pertaining to organic cotton farming. It also involves the aspect of dependence of the farmer communities on the company, on the organisation (erstwhile larger bioRe ambit) for their income needs and social needs. This indicator would inform the extent of dependence on the organisation by the farmer. Empowerment implies that the individual is independent and therefore the strategy that will emerge will inform actions that will enable the farmer to be independent and empowered. There will be various variables that will be used to inform the extent of dependence which will be discussed further in the analysis chapter. Dependence will also imply aspects pertaining to access to basic needs. It will also look at internal organisational dependence on its funders to deliver its operations.

2. **Income:** The income of a family indicates the quality of life that is being led by the family as well the aspects pertaining to the freedom to pursue their interests that goes beyond basic needs. Understanding sources of income will also help to fathom the dependence on the organisation as well the extent of diversification that the family has in - order to meet their needs. Savings and means of savings that are linked to income also indicate the empowerment of the farmers.
3. **Decision Making:** This indicator would help with understanding the extent to which the farmer has freedom in taking decisions pertaining to aspects of income generation, on addressing his social needs to the best possible manner and in venturing in new avenues where there is potential for diversification. It will also help in gathering information on the kind of concerns the farmer has in his operations.
4. **Participation:** This aspect looks at political freedoms in that this indicator facilitates in understanding the involvement of the farmers in the decision making processes that specifically impacts their lives. It also analyses the systemic processes set in place and their implementation.
5. **Self - Confidence/ Awareness:** This indicator will inform the extent to which the farmer and his/ her family is educated, have initiatives that support them in various ways both monetary and in non- monetary terms, aspects pertaining to health and access to healthcare, access to livelihoods and other economic opportunities, provision of and access to basic services etc. This indicator is also pertaining to the institution/ local partner that is self reliant on aspects of fund management, personnel management and operations management.

Through the above mentioned indicators, the study has analysed the data that has been collected in various stages.

## Institutional Structure

bioRe Association India is the local India level partner where Foundation provides funding for its operations. bioRe Foundation, as mentioned in the introduction, is based in Switzerland. Remei AG and COOP are the founders of bioRe Foundation and they contribute to the majority of the total funds for the year. This chapter discusses the Institutional Structure of the Association in that it will delve into the Administrative and implementation structures/ processes along with policies, human resources that are in place to facilitate a seamless delivery of the vision and objectives of the Association as well as the Foundation.

bioRe foundation registered a trademark of bioRe and is the owner of bioRe Sustainable cotton standard. bioRe defined a recognisable standard with the support of Flo-CERT, an internationally accredited social certification body. The idea for doing this is that there is a clear brand that emerges that resonates with sustainability's triple bottom line of addressing economic, social and environmental aspects. The standard became widely accepted and recognised due to the in-built design of having an independent body auditing and verifying the activities and strategies of the organisation with respect to the sustainable cotton standard. The standards were developed for bioRe Sustainable cotton standard and bioRe textiles. The license to brand the clothes with bioRe brand was given to Remei AG and it also allows the clients of Remei AG for the use of bioRe brand for its communication purposes through specified contracts.

It is evident that the bioRe Sustainable cotton standard is upholding the brand of bioRe and its products. The foundation brought in the credibility of the brand by undertaking the responsibility of both the Economic and the Social wing of the operations. The intention was to develop a responsible social model that would ensure social and economic growth and sustainability to the brand and the people associated in the respective countries. The sustainable cotton standard was the guiding beacon for the operations of the bioRe foundation which was delivering the same through its economic component which was called bioRe India Limited and through its social component called the bioRe Association.

An overview of the bioRe Sustainable cotton standard with the key aspects are being covered below. A more detailed version is attached as an annexure 5. The sustainable cotton standard was prepared with the support from Flo-CERT at the time of the inception. The sustainable cotton standard covered various aspects and is listed below.

## bioRe Sustainable Cotton Standard

Below are the list of 13 aspects that cover the sustainable cotton standard for bioRe Foundation. An overview of each point is mentioned against it.

6. **Structural requirement:** *There must be an internal management system to ensure a bioRe social standard and the organisation is certified as per the EU 834/ 2007 organic regulation*
7. **Market Price:** *Organisation has a written policy pertaining to quality based price setting mechanism for the cotton produced by the farmer. It also ensures that the farmers are paid the market price for the cotton produced which will be as per the contract.*
8. **Premium:** *The premium for full organic cotton is based on a minimum of 15% of the average price over the past five years. Changes to the premium to be approved by the produced representative body.*
9. **Purchase Guarantee:** *The farmer receives a 5 year purchase guarantee for cotton, on the total basis or on the basis of estimated volumes. The organisation also provides transport free of charge to the farmers.*
10. **Quality Training:** *The organisation has a written policy for providing training to the farmers and it provides quality training on the principals and methods of organic farming on an annual basis and free of charge.*
11. **Advisory Service :** *The organisation has a written policy and provides regular advisory service on organic farming and related subjects free of charge.*
12. **Individual Loan Scheme:** *Loan schemes are accessible to farmers (specifically for input) and actively promoted by the organisation. It has defined a policy for this purpose where it is interest free for the first 9 months and there are separate and transparent accounting systems in place for the management of the existing individual loan schemes.*
13. **Community development Project:** *The organisation is actively promoting Community Project Development and has defined a policy for this purpose. Community development programs are accessible to all communities and they actively participate in the definition and decision-taking.*
14. **Farmer Participation:** *The relationship between farmers and the organisation has been formalised. A representational body and mechanisms have been developed which guarantee representation of each farmer. The organisation has developed an Organisational Development Plan and is implementing a human rights based approach.*
15. **Economic Impact:** *The producer organisation is becoming more autonomous on commercial and financial grounds and contributes to the economic improvement of the farmers.*
16. **Non- Discrimination:** *Programs related to disadvantaged/minority groups within the organization are in place to improve the position of those groups in the organization, particularly with respect to recruitment, staff, committee membership and community projects. Appropriate measures are being taken to ensure participation, representation and membership of women growers. Measures are undertaken to support inclusion.*
17. **Labour Laws (SA-8000):** *Children are not employed (contracted) below the age of 15. Forced labour, including bonded or involuntary prison labour, does not occur. Management recognizes in writing and in practice the right of all workers to establish and to join a worker`s organisation of their own choosing and to collectively negotiate their working conditions. The*

*organisation has implemented a Management System for SA8000 and is regularly reviewing the social policies and labour laws.*

18. **CO<sub>2</sub> Compensation Projects:** *CO<sub>2</sub> compensation projects have a direct benefit on the project executors and are socially sustainable. The organisation monitors and documents each compensation project according to functionality and carbon emission relevant issues of the square root of beneficiaries.*

Organic certification ever since the inception to until recently before the sale of bioRe India limited to Remei AG was being undertaken under a common umbrella of bioRe Foundation.

Based on the above list that informs the sustainable cotton standard it is evident that the bioRe Association and Remei India Limited (formerly known as bioRe India Limited) together would work with the farmers to ensure the bioRe sustainable cotton standard. Insofar as the farmer is concerned, in the current scenario, the bioRe brand was a collective of both the association and the company. For the past 20 years, the organisation worked as a single entity in that the bioRe Association and bioRe India Limited (presently named as Remei) were under the bioRe Foundation. In the past few years, there has been an internal issue, which was not clearly explained, that led to the sale of the bioRe India limited to Remei AG in 2020. Since September 2023, the two entities have been separated and are independent in their operations. The operations of the fund flow from bioRe Foundation is now limited to certain activities. The distribution of responsibilities between the two entities was based on a cooperation agreement that was signed by all the parties involved and was a one year duration. (See Annexure - cooperation agreement). By the time this study was conducted, it is not clear which organisation takes care of which point in the sustainable cotton standard since the standard vaguely refers to 'the organization' in its policy text which has led to confusion. For the purposes of the report, as mentioned earlier, the farmer still perceives bioRe as one entity and the study has looked at aspects that impacts the farmers. However, there was no focus on the work specifically undertaken by Remei.

Erstwhile bioRe India limited through their extension workers would focus on signing up new farmers, having a commercial agreement that includes the premium percentages and a commitment to give seed and buy cotton from the farmer. The training for the organic certificate at the time of the study was being provided by the bioRe Association. These activities will be continued by the company as a commercial entity.

There is still no clarity of the exact pattern of collaboration between bioRe Foundation and Remei AG and COOP in terms of responsibilities and funds flow. It would be interesting to understand the percentage of profits that are routed back into the foundation for the social benefit of the people that produce organic cotton since the profits are primarily made in the garment stitching and the

finished product stages of the organic cotton. However, since this is not in the scope of the baseline to understand that aspect, the consultant has not delved into it further.

However, at this point of time, the research is focusing on the initiatives and the tasks of the bioRe Association. The research focuses on point Training, Community Development, farmer participation, non-discrimination and Carbon dioxide compensation projects. Some other aspects that are managed under the association are the Final research component and Aavran which is a society registered to promote work of the weavers and tailors.

## Chronology

The chronology of the activities (gathered from the interviews) of the organisation is as follows. COOP is the major donor for all the activities listed below.

- 1991 - Setting up Maikaal Fibers (A ginning Mill)/ bioRe India Ltd by Patrick Hohmann and Mrigendra Jalan
- 1995 - Launch of Naturaline in partnership with COOP
- 1997 - Setting up of bioRe Foundation in Partnership with COOP
- 2003 - Registration of bioRe Association 2003 - setting up of the bioRe training centre under the Quality training and Advisory service (aspects of the sustainable cotton standard (point 5 & 6)) - Headed by Ritu Baruah. bioRe Foundation was the primary funder for bioRe Association India.
- 2005-06 - bioRe India limited taken over by bioRe Foundation<sup>11</sup>
- 2006 - Mobile Health Unit (MHU) commenced its operations under the community development aspect of the sustainable cotton standard (point 8) ;
- 2006 - Commencing the Operations of Animation School under the community development aspect of the sustainable cotton standard (point 8)
- 2007 - Long term research undertaken under FIBIL research centre; the work of the research centre directly feeds into the training inputs that are shared with the farmers
- 2008 - Biogas plant construction support under the CO2 compensation project of the sustainable cotton standard (point 13)
- 2009 - Aavaran, bioRe handloom project registered as a separate society, under the economic impact aspect of bioRe standard (point 10)
- 2012-13 - The first time a farmer was the President of the Board of bioRe Association
- 2014 - bioRe Public School and Vocational training centre under the community development aspect of the sustainable cotton standard (point 8)

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<sup>11</sup> <https://biore-stiftung.ch/en/history/>

- 2015 - Financial support to construct Toilets (sanitation services) to the bioRe farmers
- 2020 - Sale of bioRe India limited to Remei AG.

## Human resource of the organisation

The COO is the main head of bioRe Association. Each component has subcomponents and has their respective heads. In all there are 154 persons working within and with subsidiaries of bioRe Association.

Administration	12
Seed research team	8
Health Component	7
Education Component	
biore Public School	50
Animation School	35
ITI	4
Training Team	10
GIZ project	9
FibL Research team	19
	154

## About the Farmers

Farmers are touted as the backbone of the country. Rightly so, they provide basic necessities for the people of the land by producing nutritious food and other produce. Agriculture is the primary source of livelihood for the majority of the population, there is an implication of disguised employment also in this sector. In India, about 67% are marginal farmers who own less than 1 hectare of land and less than 1% are large farmers who own more than 10 hectares of land. Marginal farmers are vulnerable and do not have the economies of scale or scope to handle set-backs due to various reasons and do not have a safety net. Nimar farmers are not very different.

Remei in the past years have worked with several thousands of farmers, but now, as per the latest list, most of their operations are primarily with Marginal, small and medium farmers. Total land owned by the farmers is 8957.59 acres. Despite this, the total land on which organic cotton is practiced is 4907.7 acres which is 55% of the total.

<b>Remei Farmer Composition based on total land available</b>				
Marginal farmers	upto 1 hectare	upto 2.47 acres	445	23%
Small Farmers	between 1-2 hectares	2.48-4.94 acres	686	35%
Medium farmers	2-4 hectares	4.95 - 9.88 acres	808	42%
Semi-Medium	4-10 hectare	9.89 - 24.7 acres	3	0%
Large farmers	above 10 hectares	Above 24.7 acres	1	0%

	<b>Total Land in Acres</b>	<b>Cotton Cultivated land in acres</b>	<b>Percentage</b>
Kasrawad Zone	2518.74	1721.62	68%
Maheshwar Zone	2311.65	1205.03	52%
Nimrani Zone	1857.75	1134.25	61%
Others	2269.45	846.8	37%
<b>Total</b>	<b>8957.59</b>	<b>4907.7</b>	<b>55%</b>

The farmers interviewed for the Baseline study are representative of the total population of farmers within the bioRe universe. The selection process mentioned above clearly indicates the process employed in ensuring that it is a representative sample.

## Overview of the Farmers

A total of 33 farmers were interviewed in the baseline study. There were 28 male farmers and 5 female led farmers. The percentage of women farmers within the Remei list was only 48 in 1939. Therefore, in each zone, we ensured at least one woman farmer was interviewed. Of the 33 farmers, 14 farmers belonged to the Below Poverty Line category and 19 were in the Above poverty line category.

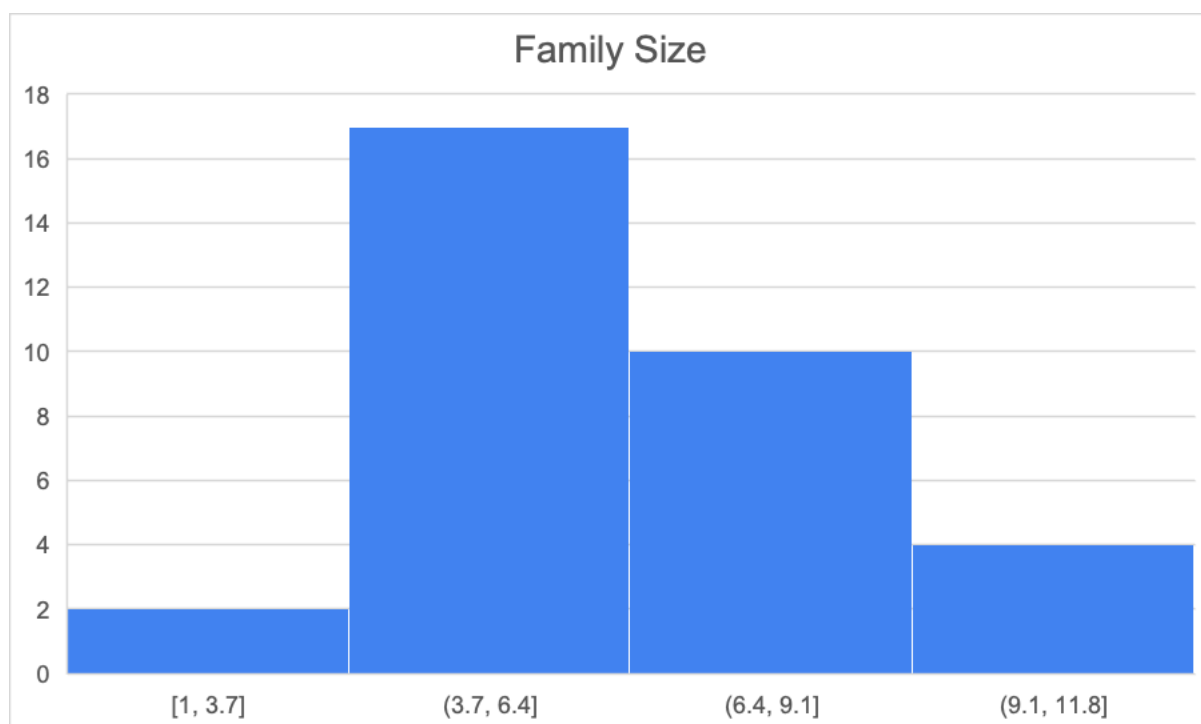
Male	28	85%
Female	5	15%
APL	19	58%
BPL	14	42%

The social status of the farmers also varied. Since this area was primarily dominated by scheduled tribes, their representation was higher than the others at 40%. OBC category at 30%, scheduled caste at 3% and general class at 18%. It is important to note that most of the farmers in the BPL category belong to the Scheduled Tribe (12) and Schedule caste(1) and OBC (1) category. The Above poverty line comprised general category (6) and OBC (9) and Schedule tribe(5) farmers. The five women farmers that are a part of this study belong to Scheduled tribe and Scheduled caste, all below poverty line and except one.

Of this, 12 of the farmers still live in Kaccha houses. Other 21 farmers have Pucca houses.

Social Status	Number	Percentages
ST	16	48%
OBC	10	30%
SC	1	3%
General	6	18%

Below is the frequency distribution of the family size for the sample of the farmers. Most of the



farmers have a family size between 4 - 9 members. There are 4 families with more than 9 members and 2 families with only 2 members.

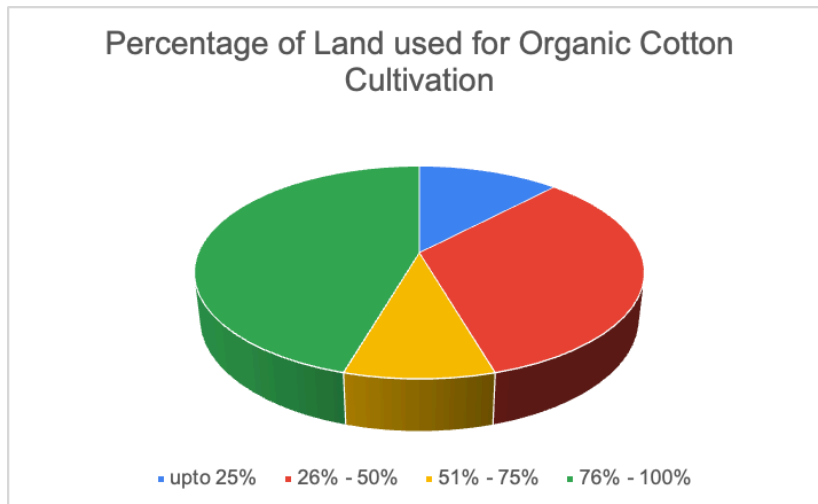
In all except two cases, the farmers have been living on this land for over Hundred years. They have an intergenerational attachment to the land and therefore are keen on sustaining it to pass it on to the next generations. Even in the two cases, they have been associated with this land for over 60 years.

Most farmers live in a joint family set up where the parents are living with the sons and their grandchildren. Almost 55% of the group have grandchildren living with them and are large families.

As mentioned in the selection criteria, from the four zones, we selected farmers that were in the 4 different categories for conversion to organic certified land. They are New farmer, In-conversion in Year 1, In-conversion Year 2 and full conversion at Year 3 and onwards. There are several farmers that have been associated with bioRe/ Remei for the past several years and therefore the number farmers in the full conversion category are the most.

Category		Numbers	Percentages
New Farmer	4	4	12%
Year 1 in conversion	5	3	9%
Year 2 in conversion	6	2	6%

Year conversion	3 full	7	24	73%
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As mentioned earlier, not all farmers are using their entire land parcel for cultivating organic produce and also specifically for cultivating organic cotton. About 45% of the farmers are cultivating organic cotton on more than 75% of their land and about 45% are using less than 50% of their total land for cotton cultivation.

Percentage of Total Land that is used for Organic cotton cultivation	Number of Farmers	Percentage of the total
upto 25%	4	12%
26% - 50%	11	33%
51% - 75%	3	9%
76% - 100%	15	45%

Nine farmers of the 33 ( which is 27%) are employing both conventional as well as organic cultivation practices. Of the nine farmers, three are new conversion cases and the others have been associated with bioRe/ Remei for several years.

Almost all farmers cultivate Cotton, soyabean, pigeon pea and/ or maize in the kharif season and Wheat, chickpea, black channa, Mung beans in the Rabi season of farming. Only one farmer of the 33, has not been cultivating cotton for the past 5 years. None of the farmers are growing a third summer crop. They are allowing the sun to heat up the soil and let it rest before the Kharif season. Below are some general information about the farmers

- a. Of the 33 farmers, only 8 of them have tractors and other agricultural equipment that would support farming activities.
- All except two farmers own two wheeler to get around the village
  - Only 4 farmers own a four wheeler
  - All except two farmers own cattle (either a buffalo and/or a cow and/ or a calf) in this group. The average number of cattle works out to about 5.
  - 14 farmers rear goats
  - 11 farmers are rearing hens
  - All except four farmers have borrowed loans for various purposes; for purposes like agriculture, wedding, construction, funeral etc. Most of them have borrowed from the society that provides loans to the farmers at mostly 0% interest rate.

## Organic Agriculture Component

Organic agriculture is the heart and soul of bioRe foundation and its partners. The organic agriculture component is the flagship component that epitomises the crux of the organisation. All key components of the organisation emerge from this component. The first five points of the sustainable cotton standard is about facilitating the organic cotton cultivation and the various aspects of it. Before the separation of the bioRe India LTD from bioRe foundation, the entire organisation worked as a single unit. The economic component i.e., now Remei India Ltd (erstwhile bioRe India) and the social component bioRe Association functioned as a single entity. Even now the farmers perceive bioRe as one organisation that facilitates cultivation and procures organic cotton on one hand and provides social infrastructure through their education and health care initiatives.

At the institutional level, this report primarily delves deeper only into those that are under the ambit of bioRe Association but for the farmer interviews the questions have been comprehensive to understand their perspectives, requirements and aspirations.

bioRe Association works on three key aspects in organic agriculture

1. Research - is done in close collaboration with FiBL
2. Seed Research - done in close collaboration with the University of Dharwad and now with other partners as well
3. Training in Organic and biodynamic farming; done now in collaboration with Remei

## Organic Cotton Cultivation - Research

**Research** on various aspects of organic cotton cultivation commenced in 2006 with a 20 year research period ending in 2026. The starting point was the Long-term experimental trail in collaboration with FiBL where the study was to assess the contribution of organic agriculture to sustainable development while also looking at long-term benefits and drawbacks. Furthermore, the main intention of this component is to understand what is the best way to increase productivity of cotton while sustaining or improving soil conditions (improving biomass, nitrogen and phosphate), reducing pest attack, ensuring natural fertilisers/ inputs are used and are organically produced.

Two main research are ongoing at the same time

- Long-term Experimental Research (LTE)
- Participatory on farm (POR) Research

The long term experimental research looks at the best possible alternatives or combinations to improve productivity/ yield of the land for organic cotton and bring it at par with conventional cotton farming. In this research 4 varieties of cotton cultivation are grown and practiced that includes both conventional methods of cultivation as well as the organic cultivation using both

organic seeds as well as BT cotton seeds (BT Cotton, non BT but using conventional methods, Organic cotton cultivation, Biodynamic organic cotton cultivation). Here the team of 2 persons along with labourers work on experimenting with defined parameters on Medium and Heavy soil which is ideal for cotton cultivation. Crop density, manure/ vermicompost types and intercropping are three aspects that are explored within this research. Soil fertility and health is another key indicator that affects yield and trials are also undertaken for the same.

The work undertaken in the research is truly cutting edge and is important that the study reaches to all farmers. While LTE is undertaken within the bioRe area of investigation with controlled parameters, POR is undertaken on similar lines at the field of a local farmer with no controlled parameters but broad outlines being defined and designed '*...for the farmers with the farmers and by the farmers...*' Informed by Ishwar Patidar the head of the research wing of organic agriculture component. A systematic and participatory process was adopted to ensure that the farmer is aware of the various challenges, the pests that attack and the inputs that need to be applied at various levels of the crop like GOC, top ten, Neem seed oil and others and most importantly educate the farmers about beneficial insects and parasites.

The team works with 20 farmers on Density trial, Intercropping trial, Biodiversity trial, Compost Trial, demonstration trial. Cucumber, apple gourd, moong, chickpeas, soybean are used as intercrops between two cycles to measure which one results in increased Nitrogen and Phosphate levels in the soil. Four farmers are also undertaking demonstration trials where the findings are demonstrated to all other farmers.

On average, a conventional farm of one acre has a yield of 10 quintals of cotton whereas the yield of organic cotton farm is about 8 -8.5 quintals under controlled conditions monitored by experts and is about 6-6.5 quintals at the farmers end. It is evident that the difference between conventional cotton farming and organic cotton farming yield is about 40% and at the research centre it is about 20% and is significant. Some of the key takeaways from the LTE research so far is that it takes about 10 years to improve soil fertility and its health parameters; selective intercropping is required to provide economic benefits and improve soil health simultaneously. Both these aspects are truly critical for the farmers that are now stepping into organic cotton cultivation. Organic pesticides like green manure that are developed through research are deemed to be *effective against a wide variety of pests and more efforts will be placed in the next phase to enhance their efficacy.*<sup>12</sup>

**Research Wing as a Learning Space:** Another key contribution of the research wing is that it creates a learning space for not only the farmers but also young researchers and students to participate and engage in a live project. International and national students alike come to undertake internships, or do their field research for Masters programmes and their PHD's. This is a

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<sup>12</sup> cited from FibL SysCom report 2022 (Cotter, Marc et al, 2022, What is the contribution of organic agriculture to sustainable development ? Long term farming systems comparisons in the tropics - Please refer to this document for more details - the consultant is not adding all the findings here in the baseline report since the information will be repetitive

key aspect that is facilitated by FibL where the upcoming generations that are more susceptible to climate change and issues pertaining to nutrition are sensitised here. The research wing also contributes significantly to the farmers training in that farmers are invited to visit the research centre to physically see how different operations are undertaken and the results of the various innovative strategies which thereafter can be adopted by them in their farms.

**Future plans:** The team is considering taking up Water efficiency and Carbon credit work linking it to regenerative agriculture as new avenues of research. One of the key challenges the team is facing is that the LTE research is coming to an end in 2026, new funding for research needs to be explored for and applied. Research needs to be supported and in the present scenario where climate change is the new normal, and with erratic and extreme weather events, vulnerability of the farmers is increasing. Finding innovative ways to support organic agriculture is paramount. With a team of 14 members, the Research wing is contributing significantly to furthering the possibilities and potential of organic and biodynamic agriculture.

## Seed Research

Seed research commenced when the company realised that there are no non-GMO seeds available in the market and slowly the desi (Arboreum) variety was disappearing and was replaced by GMO seeds and GMO contaminated seeds due to the increasing demand for the same. The seed companies were not interested in producing seeds for organic cotton cultivation and therefore bioRe Association took upon the task of conducting sustained research on non-GMO cotton seed in collaboration with Dharwad Agriculture University and FibL. bioRe Association was the pioneer in India to undertake this task of researching non-GMO cotton seed under organic conditions in 2010. BT testing protocol was established by the seed research. The reports shared on this by the team members Mr. Yogendra and Mr. Mahesh clearly explain the meticulous methods (not reproduced here to reduce duplication) that are employed to experiment, validate and produce seeds that would be ideal for organic cultivation. The main components include

- a. On station Cotton Cultivar Evaluation (CCE) trial;
- b. Multi location trials;
- c. Hybrids and varieties CCE trials;
- d. Pre-CCE/ Initial evaluation trial;
- e. Validation Trial.

These trials are done under the guidance and in collaboration with Dr. Patil from University of Agriculture Sciences, Dharwad, who has been associated with bioRe for the past 15 years. However, one question that remains is why is there no uptake for the seeds that are being developed by bioRe? This concern needs to be addressed and resolved. Validation and production for the seed for uptake needs to strategize for the future.

As per the SysCom FibL report *'Since 2019, the yield of cotton in organic systems has been higher than in the conventional non-BT system, and, in 2021, the yield was even at par with BT-conventional systems. Inclusion of a high yielding variety in the organic systems since 2019 has been important in achieving these results. This variety has been developed through the breeding program of our local partner organisation bioRe, which was initiated by SysCom India.'* Writing this in their report clearly indicates the success of the seed research program. Developing a good seed is a slow process (at least 12 years of systematic research on one seed) and the team has been working on this for the past 12 years. There are 247 seed germplasm varieties that are there with parental lines with the CCE team. Testing them, documenting and noting down the characteristics meticulously and thereafter shortlisting varieties with high yield, high quality of fibre, big boll size, easy picking variety etc. is the kind of research that the team of experts at bioRe Association have been working on for the past several years. A validation trial for selected seeds is undertaken in several locations.

Seed is the heart and soul of any crop. A good seed (that has been tried and validated) would imply that there is a good scope to have high yield that year. The farmer is looking for an ideal seed for his land, a seed that would respond well to the climate and the soil type alongside performing well for organic conditions. In the case of organic, the desi - Arboreum variety is the resilient one that is capable of resisting contamination with BT cotton. Each variety is developed based on the type of climate, the time to sow (summer crop or rainfed crop), the soil type and the quantum of water required. Following these conditions and sowing the appropriate seed is essential to arrive at the maximum yield. The seed research team initially were working on the Arboreum variety and released 3 varieties to Remei and therefore their farmers. However, these varieties were not sown as per scientific recommendations. *'...The seed was supposed to be planted in Medium soil and minimum irrigation but it was planted in Heavy soil and irrigated soil where the crop had great yield but the plant could not hold the cotton...'* implied Mr. Yogendra, Head of Seed Research. Evidently, the yield was not good and the farmers and the company Remei were not happy with this and therefore the research was then shifted to Hybrid variety and Hirsutum Hybrid varieties. Respecting scientific processes and understanding the requirements and limitations of each seed variety is critical for high yield.

Presently, the seed team has 48 Hybrids and are continuing work on developing good seeds for the farmers. The team has signed an Memorandum of Understanding with the University of Gwalior where they would work on cotton seed and release seeds for organic farming. Work on Genetic male sterility (GMS) based hybrids and new GMS parental line has also commenced in 2024. While working on the cotton seed, the seed research team is also considering working on the seeds of wheat, soybean and others that would give good yield for the farmers in organic conditions.

After the separation and formation of Remei India, now Remei undertakes its own seed research while bioRe Association continues its own seed research.

Unmistakably, SEED is central to the yield and the quality of fibre that is being produced. The work of the seed research team is paramount and must be continued for the benefit of the farmers. The collaboration with other universities is a very positive initiative in that the local team will get access to resources which are otherwise limited and also have several opportunities to engage with national and international experts on the matter in order to be cutting edge in their efforts. Most importantly, a research of this magnitude needs to be owned democratically by the farmers and be with organisations that are not for profit and are hard-core research centres. As with GMO seed, the cost to the farmer is significant and if organic cultivation is to be promoted then good quality, high yield variety seed must be easily available and affordable by the farmer. This is possible only when organisations like bioRe Association take leadership in this regard. The seed research is the USP of bioRe Association and it must invest further in developing the Seed Research component to those of international standards.

## Training

Training is one of the key aspects mentioned within the sustainable cotton standard. The points mentioned in the sustainable cotton standard are below.

- a. The organisation has a written policy on quality training.*
- b. The organisation provides quality training on the principals and methods of organic farming on an annual basis and free of charge.*
- c. Records on quality training are sufficient to allow for a proper verification.*
- d. Family members are encouraged to attend training on organic farming.*
- e. A quality management system has been developed and documented.<sup>13</sup>*

The organisation has met the requirements of all the points above and has been following a systematic approach to delivering training, free of cost, to the new farmers and old farmers associated with bioRe. The annual report on training clearly indicates the various steps adopted through the lifecycle of the cotton crop. There are various types of training that are undertaken; for instance a. New farmer training; b. Lead farmer Training; c. Lead women training; d. Training at farmer field school for old farmers for both Male and females; e. Women group training. The training manual clearly lists the various aspects that need to be covered under each training such that in the end, there is a comprehensive knowledge sharing that is being delivered to the farmers.

The organisation has been providing training to the farmers for the past 20 years and has developed a system along with a team. Mr. Vishwakarma and a team of 10 members from bioRe Association has been working on delivering training and has been instrumental in educating the farmers about the various techniques of organic farming. The organic certificate also deems that

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<sup>13</sup>[https://www.biore.ch/wp-content/uploads/X\\_bioRe\\_Sustainable\\_Cotton\\_Standard\\_2017\\_version\\_3.0.pdf](https://www.biore.ch/wp-content/uploads/X_bioRe_Sustainable_Cotton_Standard_2017_version_3.0.pdf)

training has to be intrinsic for the certification. Remei employs the NPOP method for certification and therefore providing training and ensuring that there is a robust Quality Management system where the farmers are adopting the learnings on ground is also present. However, the FLO CERT audit report 2024 indicated that there is still scope for an improvement in the QMS system. Moreover, the annual training report must be shared zone wise to capture the data systematically. While the consultant has seen the training manual, the standard operating procedures (SOP) was not shared.

The focus is primarily on the aspects of training the farmers about organic and biodynamic farming methods. The training team works closely with the extension workers (of Remei India Limited) to access the farmers. Training is a critical component of the bioRe sustainable cotton standard and is also important for achieving the organic cotton certification for the product. More details are a part of their annual report and are not being replicated here. One observation here is that it is practically an immense task to undertake 240 training sessions within the calendar year with a team of 10 persons. Individual training reports are not documented and therefore data seems insurmountable.

However, one other aspect that is mentioned in the training manual is about the training of the extension staff. Reflections and reporting on the training for the training staff is not seen and elaborated upon. This was also confirmed when one of the training staff was interviewed. She requested for some training so that she is conceptually strong in the subject matter. On the other hand, there has been no digital content that has been developed to share the training digitally to the people.

Presently, the empowerment team is looking at developing Model Farms which can also be another location where farmers can be trained about any and all aspects of organic farming.

## **Farmers Perspectives on Organic Agriculture Component**

Practicing organic agriculture in today's scenario is an exception in that the amount of effort that is required in having good productivity and good returns on investment is very high. There are multiple loose parts in organic agriculture and the farmer needs to be constantly observing the needs of his crop and provide adequate inputs. As mentioned by Vivek Rawal, the CEO of Remei India, '*...Organic farming itself is a social phenomenon...*'; implying that those working on the same are consciously contributing to the welfare of the society and the planet at large. Organic farming relies on natural processes, biodiversity and cycles adapted to local conditions. It also regenerates the health of soils, ecosystems and people. Therefore the efforts of both Remei India and bioRe Association towards organic farming is highly commendable. bioRe is a brand in itself with the farmers. bioRe foundation that holds the brand claims that internationally also bioRe is a highly sought after organic brand. One of the main reasons for this is the number of years that has

been invested in working towards finding new solutions and finding ways and means to operationalise a successful model and deliver quality at the same time. bioRe foundation with its partners has successfully managed to build a certain level of trust and credibility in the market.

Through this baseline, the intention is to understand how bioRe can improve its strategy to fulfil the needs of the farmers and provide the much needed safety net and better standard of living for the farming community.

Organic farming has several aspects that needs close attention for a good yield

1. Quality of land, soil conditions
2. Access to water supply (sustained preferably)
3. High Quality Seed which had good characteristics that will has high productivity levels, fetch high prices in the market and is suitable for the soil type
4. Intercropping or mono-cropping
5. Sowing day and time to follow biodynamic calendar
6. Crop density - distance between two rows
7. Organic inputs and manure (to main soil quality/ provide nourishment from bottom up) and spraying organic medicines to ensure parasitic pests are terminated/ eliminated - to be done at various stages
8. Weeding at various intervals ensuring there is enough sunlight and nourishment for the crop
9. Managing Labour on the farm
10. Harvesting the crop and storing the crop until it can be sold

Remei team i.e., the extension staff visits the farmer every year before the cotton crop is sown. They discuss how many acres is the farmer going to sow cotton and based on that an agreement is prepared. The agreement has details pertaining to the land parcel, the access road, well if there are any within the site etc. The agreement also entails the location of the land where organic cotton will be sowed. It will have details of the farmer and has a page for the purchase agreement to be signed off. The farmer is presently given a purchase guarantee for 3 years. A copy of the agreement is to be given to the farmer. Thereafter, the farmer is informed about the varieties of seed being supplied; the farmer is advised to select a particular variety (based on the soil type and the success of the seed the previous year) by the extension officer. The seed packets are given free at the sowing time. The amount for the seed is deducted when the premium is to be paid to the farmer. The farmer sometimes selects more than one variety of seed. The farmer is invited to participate in various trainings that are undertaken by the bioRe/ Remei team to educate the farmer on various aspects pertaining to organic agriculture.

As a part of the sustainable cotton standard, the bioRe/ Remei team has to provide structural requirements where organic certification and an internal management system is set up. There is a policy document on social internal control system and a Human development plan that holds the management system but for organic certification, they have used the NPOP system of certification

that provides group certification to farmers within a certain area jurisdiction. Individual organic certificates are not issued in this case. Ecocert and Aditi Organic Certification Private limited are the two organisations that provide organic certificates to Remei.

ORG-240 9-002149	Remei Krishak Samaj Kalyan Samiti	ICS	13-Sep-2 4	<a href="mailto:office@remei-india.com">office@ remei-in dia.com</a>	13-Nov- 25	Black gram/Urd (Vigna sp.) Chickpea/Kabuli Chana (garbanzos) Chilli dried Cowpea/Lobia whole(V.unguiculata/sinensis) Green Gram Whole (Moong Sabut) Groundnut/Peanut ,Chana Chilli ,Cowpea ,Moong ,Ground Nut ,Maize ,Moringa leaves .Pigeon Pea , Raw Cotton Sorghum Grain ,Soybean, Wheat
ORG-121 0-001048	M/s. REMEI INDIA LIMITED	TRAD ER	24-Aug-1 2	<a href="mailto:office@remei-india.com">office@ remei-in dia.com</a>	20-Nov- 24	Black gram/Urd (Vigna sp.) Chickpea/Kabuli Chana (garbanzos) Chilli dried Cowpea/Lobia whole(V.unguiculata/sinensis) Green Gram Whole (Moong Sabut) Groundnut/Peanut ,Chana Chilli ,Cowpea ,Moong ,Ground Nut ,Maize ,Moringa leaves .Pigeon Pea , Raw Cotton Sorghum Grain ,Soybean, Wheat
ORG-240 6-001381	Maltar organic Farmers Welfare society	ICS	26/06/24	<a href="mailto:office@remei-india.com">office@ remei-in dia.com;</a>	13-Nov- 25	Black gram/Urd (Vigna sp.); Cowpea/Lobia whole(V.unguiculata/ sinensis); Green chilli fresh; Green Gram Whole (Moong Sabut); Groundnut/Peanut; Maize Grain; Pigeon pea; Raw Cotton; Sorghum Grain; Soybean; Chickpea/Kabuli Chana (garbanzos); Millet; Wheat;

The first/ above table pertains to the certifications done with ECOCERT and the below table lists the certifications done with Aditi Organic Certification Private limited. This information was available on their website and has been taken from there.

ORG-2207-002513 (NPOP)	MAIKAL SAHYOG ORGANIC FARMERS ASSOCIATION	27-Jul-22	19-Jan-25	Black gram/Urd (Vigna sp.), Cowpea/Lobia whole(V.unguiculata/sinensis), Green chilli fresh, Green Gram Whole (Moong Sabut), Groundnut/Peanut, Maize Grain, Pigeon pea, Raw Cotton, Sorghum Grain, Soybean, Chickpea/Kabuli Chana (garbanzos), Groundnut/Peanut, Maize Grain, Wheat, Moringa leaves,	In.karma@bioreindia.com
ORG-2207-002327 (NPOP)	SAHYOG ORGANIC FARMERS ASSOCIATION	15-Jul-22	05-Jan-25	Cotton-Raw, Soyabean, Maize, Pigeon pea, sorghum , Fodder, wheat chickpea, ground nut	In.karma@bioreindia.com
ORG-2009-002121 (NPOP)	SYMBIOPHARM AGRIVENTURES INDIA	16-Sep-20	11-Mar-25	Cotton, Soyabean, Maize, Sorghum, Pigeon pea, Moong, Black gram, Groundnut & Green chili in the Kharif season. Wheat, Chickpea, Maize & Groundnut in the Rabi season.	office@bioreindia.com
ORG-2207-002579 (NPOP)	VINDHYACHAL ORGANIC FARMERS ASSOCIATION	29-Jul-22	23-Jan-25	Cowpea/Lobia whole(V.unguiculata/sinensis), Green Gram Whole (Moong Sabut), Groundnut/Peanut, Maize Grain, Maize Grain, Pigeon pea, Raw Cotton, Soybean, Chickpea/Kabuli Chana (garbanzos), Moringa leaves,	In.karma@bioreindia.com

In case there are any other certifications, then the consultant is unaware of the same since it falls under the domain of Remei India.

The sustainable cotton standard thereafter mandates the market price, the premium, the purchase guarantee, quality training, advisory service and individual loan schemes. All these aspects pertaining to the economic wing of cotton are managed by Remei India. Remei India, erstwhile bioRe India limited was intended to be a farmers/ producers organisation. When it was a part of bioRe foundation, 74% of the share belonged to bioRe foundation, 25% belonged to Remei AG, 1% belonged to the farmers.<sup>14</sup> However, after 15 years of operations, the economic wing was sold off to Remei AG.

<sup>14</sup> Shared during the interview with Vivek Rawal

## **Why producing organic cotton with Remei India**

The farmers were asked about when they preferred to practice organic farming and why they are associated with bioRe. Below are some of the responses that were shared

- *'...We are with bio re because we get seed and medicine from that.*
- *They give seeds and take (pick up) cotton from home.*
- *When the bioRe team comes, they show us the demo (what should be used first). They show us the benefits. They show us a step-by-step process during the training.*
- *Help us to avail ourselves of the benefits of the schemes.*
- *The BioRe team comes at times, they come home to distribute seeds. After that fielding is done, they give us seeds around 25th May. They give us dates for sowing seeds, also they give us a calendar, we sow seeds according to the auspicious time after seeing it in the calendar. After that we give water to the sown seeds.*
- *There are people who come from biore, they give us the seed, they come to check the work that is happening in the farm, they come after cotton is harvested. They come to help make the compost, they help with inputs/ medicine, they call for training, they come to check. bioRe uses some machines to check. I don't know the name of the machine*
- *We get information (for organic farming) from bioRe , apart from bioRe we do not have any information.*
- *Experience with bioRe is good, we are satisfied, we are getting a bonus. They pick up cotton from home.*
- *The benefits of the organic farming include higher price than the market, bonuses and payment or dues on ripening of crops and benefits of other schemes from bioRe half of the farmers who do chemical farming understand this I said but the people from the organization should also tell them. We do organic farming with great dedication. We work hard too*
- *BIO RE TEAM comes in the month of may to give seeds and and also give BIO – DYNAMIC CALENDAR to farmers .And they also applied the drips and cow dung.*
- *DHARMENDRA MANDLOI is directly involved .*
- *Bio re provide fertilizer, seeds and premium*
- *I am connected with biore due to the benefits of organic farming like manual labor does not have much expanses.*
- *We get seeds from the biore and they come for training ( Sunil Extension )*
- *Sandeep and Tarun (Extension People) They come at home, provide us details and never visit in the field.*
- *He doesn't get any information from social media and all only get information from the biore team ( Extension )*
- *It's the same weather doing organic farming or conventional but in organic we get seed and manure.*
- *The relation with biore it's nice till today not any issue we have.*

- *Because of Ashok Chouhan ( Extension officer ) we joined biore there are not many farmers, who are practicing organic farming. There is nothing special regarding organic farming in the village.*
- *At the beginning there were so many farmers. Gradually all the farmers left us. Now we are three farmers . Only Land is getting good fertility that's why we are still associated.*
- *In every 15 days or 1 month they come. On the time of germination , and when we spread medicine then he came to give fertilizer . And also inspect field...'*

### **Awareness of Conventional farming**

Evidently the bioRe/ Remei team is sincerely hand- holding the farmers and supporting them to cultivate organic cotton. One main reason where several of the farmers practice organic farming is for health purposes of both the individual and the land. They are aware that conventional farming doesn't lead to positive outcomes in the long run. Below are some of the quotations that were shared for the same. Almost all of the farmers also indicated that they are practicing organic farming purely out of self interest.

- *Soil is spoiled due to conventional farming.*
- *Expenses in conventional agriculture are more.*
- *Chemical fertilisers cause damage to the soil. Diseases are increasing.*
- *Yes, we are aware, it causes diseases.*
- *Good production of BT seeds. After then land quality is destroy, had health issues and again left in the year of 2007.*
- *Human are powerless by chemical farming. Increased problem by illness and suffering from cancer*
- *2.0 acres practicing conventional farming (Last time, after listening(got influence) to the people, chemical fertilizers were sprayed and soybean were damaged)*
- *They used chemical and get much more production. Yes we aware of the effects of chemical for our health(suffering from acidity)*
- *There are 120 farmers by only 40 practice organic , the farmers are slowly joining organic*
- *There are negative impact of the chemicals, there is no energy due to chemical, there are a lot of illness due to conventional farming.*
- *Chemicals have a bad effect on health. Chemicals cause TB, cancer, heart attack. Only special trains run in Punjab and Haryana.(specially for health purpose)*
- *Conventional farming impacts the health, it causes more diseases like Diabetes, Blood Pressure and Cancer. Recently, Chandipura is spreading, immunity is getting low. Respiratory problems are increasing.*
- *aware of harmful effects on health, I know it causes itching problems, burning sensation in eyes.*
- *Conventional land has sugarcane now but it's not good like before ( Few Years Back )*
- *If we can add a bit of chemicals with organic then it will be good enough otherwise it's a business of loss.*

- *If farmer do organic then profit will be there. If we do chemicals then we get debt. Organic saves money. Conventional is expensive.*
- *Chemical is harmful for our health. Through chemicals we have stomach problem and acidity problem. In organic we are healthy.*
- *Organic is good , it is beneficial for us. Chemicals fertilizers are expensive then organic.*
- *After using orgnic there is no worries. Earlier used to be very worried about chemical spray.*
- *YES, by using the chemicals fertilizers we attract many diseases like TB ,appendix , paralysis .*
- *Production is more in conventional so are expenses. My productivity has been increased, my health is good, I am happy*
- *For example (in organic) 5 acres of land gives 25 qtls of organic cotton while (in conventional) 5 acres of land gives 40 qtls of inorganic cotton (BT). You cannot get everything through farming, it takes time. If conventional produce good, then still organic farming is good because it is less expensive.*
- *Chemical is not having taste, many disease come from this . There is no taste in food or vegetable.*
- *We get attacked by many disease from chemicals like fever , headache , acidity . We stay healthy from that compost which we made at our home*
- *in chemicals production is good but land will destroyed .Only 40 % difference is there in organic and chemicals farming .*
- *By chemicals we get sick like cancer , heart attack .*
- *In chemicals expenses are less but in organic less expenses are there . Lack of taste in chemicals but organic has good taste*
- *Before we had chemicals , but now we are doing organic . It will take 2 years to close chemicals because we do not close directly .*
- *Because in chemical production is high rather than organic . so farmer also see the production and market is also not much good of organic .*
- *We use urea, kill bait (chara maar) chemicals in conventional farming In organic farming we use cow-dung manure C.P.P, chrome compost, neem oil, butter milk as manure.*
- *Yes, we know the harmful effects of chemicals. It causes diseases like heart issues, diabetes, knee ache, and cancer.*
- *The land wad badly affected with chemicals so that's why we decided to shift to organic .*
- *From chemicals poison reached to body and also affected our body and land both .*
- *Conventional farming causes diseases, don't know, whole village is practising conventional farming except 5-6 farmers(they are practising organic). Other's (farm neighbours) chemical spray easily gets into my field, they are practising conventional farming. •In all four directions (everywhere) there is conventional farming, I am alone in the middle of organic one.*

## **Dependence on Seed**

Within organic cotton cultivation, seed plays a crucial role. The farmers touted that seed is critical to having a good crop. Below are some quotations. Several farmers spoke positively about the seed, whereas several others felt that seed can be made better. They also felt that bioRe must provide the seed that has characteristics of 1. Easy Picking; 2. Big Boll size, 3. More Bolls; few others also added one aspect of 4. Early Maturity

- *Seed quality this time is good.*
- *There are seed is also not stable , because the seed which we sow in the first year that only we want in next wear also but that same seed are not available*
- *There are less production and input, and the shortage of hybrid seed also.*
- *It is the company's responsible to provide good quality seed to the farmers.*
- *We get seed from biore; in the past we have to buy the seed from the market for which we have to pay in cash for the seed.*
- *We got good cotton seed. This time the germination is good. I had sown seed, but due to rain it got spoiled. The seed must grow well*
- *We don't have any doubt on the quality of seed.*
- *We get seed from bioRe, it's good and we are happy.*
- *We need a type of seed which is suitable for land and is more productive.*
- *The issue with seed, it should be very nice, Production should come very nicely.*
- *Some time seed is not good that's why other conventional farmers don't like to do organic. And second one is other crop not purchasing.*
- *Seed should be well productive . Other crop purchasing , seed should be nice.*
- *Yes, Seed must have good productivity, If its good then farmers will automatically connected to you.*
- *bioRe is providing cotton seed , Wheat (homemade),*
- *Yes I am happy with seed but want another one if it's there who has good productivity.*
- *Need Big boll size seed, easy picking , easy maturity*
- *Seed must be nice , productivity will connect other farmers too .*
- *If the seed quality is good, the production will be good. Also, the seed quality must be good. The seed we were given this time was good enough, but next time it should be much better. The seed company is giving is imported from other state, that seed should be prepared in our climatic conditions. This time the seed is given by bioRe but farmers don't know.*
- *Yes, Seed must have good productivity, If its good then farmers will automatically connected to you.*
- *Yes I am happy with seed but want another one if it's there who has good productivity.*
- *Need Big boll size seed, easy picking , easy maturity*
- *Seed must be nice , productivity will connect other farmers too .*

- *Role of seed- If the seed quality is good, the production will be good. Also, the seed quality must be good. The seed we were given this time was good enough, but next time it should be much better. The seed company is giving is imported from other state, that seed should be prepared in our climatic conditions. This time the seed is given by bioRe but farmers don't know.*
- *Cotton seed of bioRe needs improvement.*
- 

As mentioned in the Seed research, renewed efforts are put in the direction of Seed improvement. Furthermore, the team is considering improving the quality of other seeds as well. *'...We want soyabean seeds "start giving other crop seeds also . Those who wants cotton will produce cotton and others will produce soyabean. Cotton seed is not good , production is very less...'*

In all, it is safe to say that the farmer is highly dependent on bioRe/ Remei for the cotton seed. Remei loans the seed to the farmers and deducts the amount only at the end when the premium needs to be paid. In general, the farmer is moderately happy with the seed provided by Remei but would really like a significant improvement in the same. There are several farmers who are willing to support the improvement processes. Validation trials can be commenced with these farmers. In the end, the yield/ productivity of the crop is all that matters since it is linked to the income of the farmer. Good yield validates a good seed. Good seed will also bring in more farmers to adopt organic farming and leave conventional farming techniques.

### **Dependence on Certificate**

bioRe/ Remei only purchases organic cotton from the farmers that are associated with them through the NPOP (National Programme for Organic Production). Remei ensures that the certificate is applied every year and is renewed based on the list. It is clear that the certification is for the land and everything that is produced from the land.

While one issue is the need to brand and buy the other crop, there is a lack of awareness of the certificate since the farmer is only given (not all farmers have responded positively) a copy of the purchase agreement. This lack of awareness has led to a certain level of dependence on Remei to support the other crop as well.

- *'...No, we do not have any certificate, but we want it. We only have an agreement copy. This year's copy is still not given to us (we signed it, they took it with them).*
- *We do not have a certificate; we only have an agreement copy.*
- *You should provide us with a certificate otherwise we will stop it (association with bioRe). For these many years we have been sacrificing, still we are managing it.*
- *No, they give just agreement copy on XX(farmers) name*
- *No, I do not have any certificate.*
- *.No do not have certificate.*
- *It has been almost 20 years since the organic certificate was given. After so many years, who knows where it was kept and whether it got spoiled*

- YES , I have registration certificate
- I dont have organic certificate.
- They do not know about the certificate and the TC
- No, I don't have a copy of the organic certificate of our farm
- No certificate has been received yet from the company.
- Wo do not know about organic certificate and transaction certificate(TC) (Individual level) for our organic certificate. If we have certificate then government will also accept
- No I don't have any type of organic certificate. If they have given earlier don't know.
- Yes I want this certificate provide us
- No I don't know how to get it this certificate.
- No organic certificate only have Agreement copy.
- Yes, I am willing to take the organic certificate.
- I signed the agreement and documents of bioRe
- We have agreement copy, not certificate.
- No, we do not have certificate, yes, we want to take a certificate.
- Not having Organic Certificate, only having agreement copy with biore
- They Don't give us Certificate and even Its not useful for me.
- We have a copy of agreement.
- YES, we want to take this certificate (TC) , we do not know anything about it. It is a just paper for us. If you can explain then we will do this.
- Yes, we have a certificate available but in a group. We have received a certificate from bioRe (in group). If the certificate is available so we can earn more money from other crops (organic rates).
- Customers ask for the organic certificate (what's the proof of organic). We should get individual certificate on individual crops for individual farmers (for kharif and rabi; certificate per head). We should be having certificate of both the crops. Certificate is beneficial for us
- Yes we should get individual certificates per head for individual crops; one for rabies and one for kharif.
- I take decisions on signing documents (bioRe's documents;5 agreements have been signed)
- I got certificate before 5 years ago. They said that after completion of 1 year they give us a certificate but now the process stopped.
- They do not give individual certificates .They have joint certificate.
- NO , we don't know about TC .
- organic certificate and Transaction Certificate (TC) (Individual level) for your organic produce? – Don't know about this .
- NO, we don't have any certificate .
- No , but we have agreement copy .
- Do you have a copy of the organic certificate for your farm? – NO

- *Yes, we have an agreement copy (received from) bioRe.*
- *No, we do not know about certificate.*
- *DON't have certificate .*
- *No, I do not have certificate. Nobody buy organic wheat.*
- *NO , We don't have a copy of this but it's good if we find it...'*

However, in the past 20 years, no farmer has been given the organic certificate and no farmer has been able to brand their other crop/ produce as organically certified irrespective of availability and linkages to markets. This seems to be a limiting factor in accessing better prices for the organic produce. The farmers have expressed their views on the same.

- *It is less expensive. Buy all the grains so that it will be good for us, like purchase wheat, soya.*
- *They are happy with organic farming. BioRe must purchase other grains/crops too.*
- *Apart from the cotton, other crops like maize, wheat, pigeon pea etc are also grown organically but there is no benefits in being organic*
- *Because there's no organic market it is wiggly important to have market for other grains we not got premium in the crops*
- *And never have market for the other crop and price. Since 15 to 20 years saying the same thing again and again but not response at all.*
- *If you start purchasing other crop will be batter. We would get more growth. Please do something.*
- *If you start purchasing other crop then we should have organic certificate otherwise what does it need. We don't have market for it.*
- *Yes, I would like to sell other crops as organic produce and bioRe must encourage sowing a as well as buy the other crops as well*
- *Other organic crop rate is not there due to there is no market. It's in general sell it in the Mandi (Govt). other organic crop like Wheat , Chick pea , Soya and all*
- *Remai India Is providing us only premium only for the cotton it is inspiration for us. They should be ready for other crop.*
- *We sell cotton in bio re and sell other crops in market we did not get bonus from market.*

### **Dependence on Training**

For a new farmer to understand the complications and nuances of organic farming, especially in the first year when the yield will be sub-par, it is critical that they are incentivised to join the organic farming system. Training is one of the main components that facilitate an easy transition into a full farm conversion. Training also provides a knowledge transfer that will support your farm in many ways.

The farmers are appreciative of the training that is given to them by the bioRe/ Remei team.

- *'...Went to association training, information was given about composite fertilizer by karma sir. No information about research centre*
- *I got alone to the training, yes I am linked, I got three times a year ( 3 in 6 months).Each training is for 3 hours , sometimes if we go early, the trainers come late. They should explain properly, the previous system of farming is also ok. There is no transportation problem to attend training, a vehicle comes and and we come in that vehicle - no other challenges to attend training. No loss of income due to attending training - we need to give training some time*
- *Karma ji gives the information about the organic farming and he said that time management is most compulsory for this.*
- *Training should be in field and it should be practical . it is more better than orally. It was also told that how to use pheromone trap. If this training will held on our field it is better than that.*
- *YES , I HAVE SEEN BIO RE LTE, POR, AND seed research. I know Bhupendra bhai and I also went on that road research . how many varieties they used for make medicine and manure that also gives the knowledge.*
- *bioRe should continue good work, should initiate new crops/grains, should continue organic farming so that next generation won't suffer from conventional farming (harmful effects). Meetings should be conducted frequently so that we can meet frequently. Keep interacting with farmers, focus on other grains too. The company should organize exposure visit to Maharashtra (as there skilled farmers and their methods of farming they use is different).*
- *Ya but there should be something training regarding any business and all.*
- *bioRe team has demonstrated on manure preparation, they have shown us demo field, they have given information on cotton.Either I or father goes for training sessions.*
- *4 times I have attended meetings, and it takes around 5 hours for meeting...'*
- *Training needs an improvement and there is a need of technical training. In case of serious problem in other crops, the best method should be suggested.If the farmers are doing something new then they should get exposure. GOC compost is old something new should be told.*
- *In a month 1 or 2 times training conducted by team , Me ,my son and daughter in law goes for training .*

### **Dependence on Advisory Service**

In case any of the farmers are unable to attend the training, then the extension officer visits the farmers and teaches him how to go about with preparation of inputs, the time to spray etc. This comes under the advisory that is provided under the sustainable cotton standard clause. Extension officers are the advisors that are the trusting partners to the farmers and they guide the farmer to take the appropriate decision. Below are some quotations implying the same.

- *We get solutions from extension officers. If in case something is not understood, or extension officers communicated through WhatsApp (media). We consult with bioRe in case if within*

*one/two sprays the problem isn't solved. We prepare dung manure (dung mix). The extension officers are good, services are good, they are always available when they are called.*

- *The last year 2022-23 it was very good. By the suggestion of Dharmendra bhai I changed the seed this year.*
- *When I switched from BT the production was less but with the passage of time premium increased.*
- *Dharmendra bhai helps and give summary if I fails to attend meeting.*
- *We are linked with Sandeep, Seed, manure and knowledge about pests attack is shared by Sandeep*
- *Chauhan ji from Bio re comes from the beginning of cotton sowing. He gives seeds, goes to the field. He gives advice on how to prevent caterpillar infestation and mosquitoes. After the crop is ready, Chauhan ji takes the goods from home. The vehicle is his. He gives money in cash. Sometimes he even deposits it in the account.*
- *They tell about the distance between plants and the distance between lines. They tell about fertilizers, medicines, seeds. They tell how to spray, how to plant etc. Women also go along with cotton plantation. They tell to plant the plants close to each other. Plant more plants. You will get more production. They plant cotton seeds by hand.*
- *We get seeds from the biore and they come for training ( Sunil Extension )*
- *Sandeep and Tarun (Extension People) They come at home, provides us details and never visit in the field.*
- *He doesn't get any information from social media and all only get information from the biore team ( Extension )*
- *Its same weather doing organic farming or conventional but in organic we get seed and manure.*
- *Farmer is more connected with Ashok Chouhan.*
- *Rakesh bhai comes to see the crop , to give seed , inspection. It is very good and no dispute between us. Rakesh sir give much knowledge .*
- *We get information from Rajesh Bhai, bioRe and training sessions. They give us good information, farmers cannot do, farmers need ready made inputs. Farmers do not have time to prepare inputs. We have labour related issues, labours charges huge amount of wages.*

### **Dependence on Premium**

Premium is an incentive for the farmer to enroll with the bioRe/ Remei team and cultivate organic cotton. Earlier, the premium would be 25% of the market rate but in the present times, the premium is fixed at 15% as mentioned in the sustainable cotton standard. While it is mentioned in the sustainable cotton standard that the SRB/PRB can change this rate, it has not been done so far. Several farmers have made up their mind with the amount that is being given but some of them strongly suggested that the premium needs to increase if they need to make up for the gap in

income/ production when compared to conventional cotton farming. Below are some views of the farmers.

- *I do not have much balance with premium, premium and production both should be increased.*
- *Even if the premium is less but price should be double. Like before I get 25 % profit so what is my profit? I bought a tractor from 25% that through loan. And that premium I received was used for installments as tractor. If the premium was good I got rid of my loan and it's the benefit of good premium like a bank premium, narmada pipeline. If we really get the right value for organic, then the premium should be 50 %.*
- *Like you asked to me that ,what you had been SAVED , then company said said to keep the farmer alive. If company will come from 25% to 15% so, they can do something else of 10 % for farmers.*
- *Apart from the cotton, other crops like maize, wheat, pigeon pea etc are also grown organically but there is no benefits in being organic*
- *Land improves and bonus is good.*
- *Production remains low but premium is received so it is okay.*
- *When I switched from BT the production was less but with the passage of time premium increased.*
- *I have to get the house plastered so I wish BIO RE increase the premium on cotton.*
- *Production is good in both chemical and organic farming, but in organic farming the land remains good. The land remains safe. Production is 10% higher in chemical farming but the future increases in organic farming. The premium received on organic farming reduces the losses incurred due to low production.*
- *Organic production is 30% less instead of chemical farming. Conventional farming having more expanses as well as. Overall 30% is more in conventional. Using chemical is like making in balance of the nature and face rain fed problems. So whatever organic is helping the nature to be nice. We get premium also which is also helping it.*
- *No , only cotton is purchased by biore, rest of the yield want to sell in the market as a organic. But what to do it's like ( Gadhe ghode ek saman hai)*
- *2nd- No we don't get any premium from any market we are looking for it.*
- *Don't give them money increase the bonus will help us much.*
- *Loss: 1. there is less production as per as expectation and compensation should be provided in a way which is more profitable.*
- *Expenses in conventional farming are about 25% more and so is the output. We do not get that much of premium, production in organic is less.*
- *The are a few reasons like- there is lack of information. Earlier we used to get good amount of premium, but currently it is comparatively less. Organic is producing less quantity.*

- *How to encourage farmer participation in bioRe - increase premium, if productivity reduces the they must increase the premium, earlier we were getting 25% , and now we only get 15%, last year, I took the maximum premium 60,000 INR*
- *Remei India Is providing us only premium only for the cotton it is inspiration for us. They should be ready for other crop.*
- *But at any cost conventional farming is better than organic. It's around 35% more batter. Premium is only for motivation. And seed amount we have to pay.*
- *biore is giving good payment for the cotton and premium also we are getting. But Better production is coming with only chemical farming.*
- *The formula is based on the rate of last 5 years . They should be change in premium , it is a exploitation on farmers , before some time the premium was good.*
- *in chemicals production is good but land will destroyed .Only 40 % difference is there in organic and chemicals farming .NO , it is not fulfilled by premium .*
- *The main problem is for farmer is that the price of product is fixed by businessman . Bio re also give price according to other market place . It is not sufficient price for us . Bio re should improve in it . We should get organic market and should get readymade organic medicine and manure and . we should also get contribution amount .*
- *The production is less and premium should be increase . The premium is not sufficient .*
- *We should get a good premium price.*
- *No, the gap in income is not filled by premium.*
- *Suggestions to empower farmers- a drip system should be provided. Bonus should be increased; Net should be arranged to protect fields from wild animals.*
- *We want to get good price and pay a high premium.*
- *YES , We are happy with this productivity of cotton. We want to get more premium*

### **Dependence on Input**

Input, as manure for the soil and as medicine for spraying on the plant are both essential for the yield of the crop. Presently, Remei is providing certain quantities of inputs to the farmers. While the farmers appreciate it, they strongly feel that the company can give more. They are willing to pay for the inputs since they are unable to make it themselves. Below are some of the views on the same.

- *Vermicompost is not given, it should be given.*
- *Bio re has not that much input which could be given to farmers.*
- *It is beneficial and production is also good as well as expenses .But fertilizers are not available at right time. Pest controlled technique should be introduced.*
- *hey came later to give manure, BD 500 - was in powder form, it was sprayed using neem oil. They want biore to give medicine - I dont find time to make the medicine at home.*

- *Prepare medicine/pest control and manure, company should provide this because without this the grains will not ripe (ready to harvest). Land is habitual of manure and fertilizers.*
- *bioRe must give seed, manure and inputs on time, we do not want it for free, we will pay for it , we do not have time to make it at home*
- *Whatever the manure is being provided by company like top10(Self Made), Khad and sometime need to buy from the market.*
- *It would be very fine to have manure and inputs from the biore.*
- *Manure and medicine should be given by company. To completely practice organic farming on land; company should provide ready made manure and medicines. Farmers do not have time, he cannot prepare inputs*
- *We get information from Rajesh Bhai, bioRe and training sessions. They give us good information, farmers cannot do, farmers need ready made inputs. Farmers do not have time to prepare inputs. We have labour related issues, labours charges huge amount of wages.*

## Conclusion

The study on farmers' perspectives on organic agriculture highlights the complexities and benefits of practicing organic farming under the guidance of organizations like bioRe and Remei India. The research aims to assess the effectiveness of bioRe's approach in supporting farmers while identifying strengths, challenges, and opportunities for improvement. Organic farming is recognized as a sustainable and socially beneficial practice that enhances soil health, biodiversity, and economic stability. However, it requires intensive monitoring, careful input management, and market access to ensure profitability.

This summary presents key findings based on farmers' experiences, structured around critical indicators such as dependence, income, decision-making, participation, and self-confidence.

## Strengths of bioRe<sup>15</sup> India

### 1. Comprehensive Farmer Support

- bioRe (including Remei here) provides critical resources, including organic seeds, training, market access, cutting edge seed research and certification assistance.
- Farmers receive purchase guarantees for three years, ensuring stability in the organic cotton market.
- Technical guidance is regularly provided through extension officers, advisory visits, and training programs.

### 2. Sustainability and Agricultural Best Practices

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<sup>15</sup> here bioRe stands for both Remei and bioRe Association as the farmer does not distinguish between the two. For the past 20 years they have perceived this organisation as one entity and are continuing to do so.

- Emphasis on soil health and biodiversity conservation promotes long-term land productivity.
- Crop rotation and intercropping practices reduce dependency on single-crop income and improve resilience.
- Farmers receive biodynamic calendars and guidelines to optimize sowing and harvesting cycles.

### 3. Trust and Market Access

- bioRe has established itself as a credible brand in the organic farming sector, ensuring premium pricing for farmers.
- Long-term collaborations with organic certification bodies (Ecocert, Aditi Organic Certification) enhance the credibility of bioRe's farming model.
- Direct procurement by bioRe eliminates intermediaries, ensuring fair prices.

### 4. Community Development and Training

- bioRe offers training sessions and workshops to enhance farmers' knowledge of organic practices.
- Mobile health units and educational initiatives contribute to farmers' overall well-being.
- Extension officers provide personalized advisory services to ensure farmers receive timely support.

## Challenges Identified in the Study

### 1. Farmer Dependence on bioRe India

- Many farmers rely entirely on bioRe for seeds, market access, and organic certification.
- Some farmers expressed concern about the lack of alternative buyers, making them vulnerable to policy changes.
- Farmers expect additional support for other organic crops beyond cotton, as there are limited market opportunities.
  - "If bioRe does not provide seeds or stops buying cotton, we will be in trouble. We do not have alternative buyers who pay us fairly."*

### 2. Financial Sustainability and Premium Payments

- While organic farming reduces input costs, lower yields in the initial years affect short-term profitability.
- The premium paid by bioRe (15%) was previously higher (25%), causing some dissatisfaction among farmers.
- Farmers request increased premiums to compensate for lower yields compared to conventional cotton.

- i. “Even if the premium is less, the price should be double. Before, I got a 25% premium, which helped me buy a tractor. If the premium was still high, I could pay off my loans faster.”*

### **3. Challenges in Decision-Making**

- While bioRe promotes participatory decision-making, many farmers still rely on advisory staff for crucial decisions.
- Women farmers have limited involvement in decision-making due to traditional social structures.
- Some farmers lack awareness of organic certification processes and regulatory requirements.

- i. “At first, I had no idea how to choose the right seed or manage my farm, but after attending bioRe’s training, I feel more confident in making these decisions on my own.”*

### **4. Participation and Representation Issues**

- Although farmers attend training sessions, participation levels vary by gender and socioeconomic status.
- Limited access to digital tools and market intelligence prevents farmers from making informed sales decisions.
- Farmer cooperatives are underdeveloped, reducing collective bargaining power.

- i. “They hold meetings, but only a few people are allowed to speak. Many times, our concerns are not fully addressed.”*

### **5. Seed Quality and Agricultural Inputs**

- Farmers highlighted the need for improved seed varieties with higher yields, larger boll sizes, and early maturity.
- Some farmers feel that bioRe should provide ready-made organic inputs, as they lack time and resources to prepare them.
- Organic pest control remains a challenge, affecting productivity and requiring innovative solutions.

- i. “The issue with seed is that it should be very nice. Production should come very nicely.”*

### **6. Training and Knowledge Gaps**

- While bioRe provides regular training, some farmers suggested more hands-on, field-based demonstrations.
- Farmers expressed interest in exposure visits to successful organic farming regions to learn best practices.
- Training should also focus on financial literacy and market diversification.

- i. “Training should be in the field, and it should be practical. It is better than just verbal instructions.”*

## Key Farmer Testimonials

### 1. Positive Experiences

- *"We are with bioRe because they provide seeds, training, and purchase our cotton. They show us the benefits step by step."*
- *"The premium helps us cover expenses, and organic farming keeps our soil fertile."*
- *"bioRe provides us with knowledge we wouldn't get elsewhere. Their training helps us make informed choices."*

### 2. Challenges and Areas for Improvement

- *"We need better seeds with higher productivity. If the yields improve, more farmers will switch to organic farming."*
- *"We do not have an organic certificate; we only have an agreement copy. This limits our ability to sell other organic crops."*
- *"bioRe should help us market other crops beyond cotton. Otherwise, we cannot fully benefit from organic farming."*
- *"If farmer do organic then profit will be there. If we do chemicals then we get debt. Organic saves money. Conventional is expensive."*

The research findings underscore bioRe's significant role in promoting organic farming and improving farmer livelihoods. However, challenges such as farmer dependence, financial stability, and market diversification need to be addressed. By enhancing seed quality, increasing training accessibility, promoting gender inclusion, and expanding market opportunities, bioRe can further empower farmers and create a more sustainable organic farming ecosystem.

# Health Component

There are two parts to the health component as mentioned above. Dr. Shahina was interviewed to understand the details of MHU.

## 1. Mobile Health Unit (MHU)

- Operations are undertaken in a fully equipped bus that has the ability to undertake X-ray, ECG test and supply medicines for the treatment prescribed by the doctor available in the bus at the point.
- The bus travels to different locations on each day of the week (which is fixed for the week) in order to cover the region and as many farmers as possible. This makes it easy for the farmers to know that they can expect the bus to be at a specified location on each day from 9.45am to 4.45pm thereby helping them access it easily.
- So far, over the last 17 years of operations, the MHU has provided healthcare treatment to over 1,51,000 cases in 2023-24.
- The MHU team comprises a lab technician, pharmacist, a driver, X ray and ECG technician, an attendant and a doctor, in all 6 persons - the same team has been working on the bus for over the past 17 years. This has provided the community with a stable set of people to engage with and has led to building trust with the MHU, its services and therefore in bioRe Association. The farmers are really happy with the reliability of the MHU and its services.
- The MHU has provided affordable health care to the bioRe farmers in particular. Each farmer is given a code by the extension officer and the same is produced at the MHU. The bioRe farmers get treated at lesser costs and the medicines provided are given at a discounted rate.

## Challenges

- The size of the bus is a huge limitation in that it is unable to manoeuvre through the narrow roads of the villages and therefore not in a position to access farmers in remote areas.
- The farmers are requesting a sonography machine in the bus for better analysis but bioRe Association has not been able to provide it within the MHU so far.
- Access to electricity from a stable and direct is limited to only 3 locations, at the other the MHU uses a generator that is causing a lot of pollution and noise in the neighbourhood.
- Lack of access to other national and local government schemes has limited the operations of MHU.
- Doctors are unable to support the operations of the MHU particularly due to its mobile nature. Presently there is one doctor, an Orthopaedic doctor who visits the MHU once a month. It would be preferable to have other specialists also providing calls to the same.

## Farmers Perspective

Below are some observations based on the responses that were received through the interviews

1. The farmer is aware of the harmful effects of chemicals and fertilisers and also realise that using them will lead to a lot of illness which can adversely affect the family both in the short term and long term. Only 6 out of 33 farmers that have been a part of the in-depth interviews have accessed the Mobile health Unit.
2. One of the key reasons why the farmers have not accessed the MHU is because they claim that they are a healthy family in general. In general, only the elders occasionally need a visit to the hospital to address concerns of hypertension and diabetes. Most of the farmers have had their own produce which is organic and therefore extremely healthy and are not falling ill for the same reason. Hence, by practicing organic they are not affected by chemicals and by eating organic produce they are able to maintain good health which is reducing their need to access any healthcare avenues.
3. On the other hand, the MHU has a specific location where it is parked and due to its size is able to reach only certain points. The farmers are instead having other hospitals and primary health care centres that are affordable and closer to their homes and are accessing those. In case of more complex illnesses they are aware that they need to go to bigger hospitals and even the MHU cannot support such cases.
4. While MHU attends over 1.5 lakh cases annually, it is important to look at the health component closely and truly assess the benefit it has for the bioRe family. Alternatives like providing Health insurance, or running a few anganwadis or any other alternative must be explored where the bioRe family is benefited directly with the initiative. A mobile bus cannot provide a wide range of healthcare solutions as it is, it is limited to a basic level of diagnosis and checkup and while it was a good idea when the operations commenced, revisiting it and not upgrading it in a more stable manner after 20 years of commencement of operations is something that needs deliberation.

## Future Potential for the MHU

- The impact of the work of bioRe association through the efforts of MHU is significant in the lives of the farmers and other locals in the region. There is trust due to reliability of the service and this can be used for scaling it up.
- bioRe Association has tied up with a local hospital named Amaltas where the bioRe farmers are provided treatments for a discounted price. This kind of a tie up can be undertaken with other hospitals which already have some presence in the region.
- Tie up with other government schemes or primary health centres of the government will also help create a better system for health care for the farmers.

- The proposal is to have fixed primary health care units at each village node where there are bioRe extension offices. Having a stationary health care centre will help in easy access (especially for those areas where the bus cannot reach) and will also help in building an ecosystem around the centre. The centre could be multi-pronged in its approach.
- In order to make organic a more viable alternative, MHU can be one of the aspects that could further incentivise the conventional farmers to shift to organic farming.

### Farmer Perspective

Most of the answers for the health component have been non-descriptive and have been recorded as one word answers. It was also the case since the questions were specific and were aimed at understanding the access of the farmers family to resources pertaining to health and other aspects like sanitation and biogas.

Farmer No	Have Biogas	Have toilets	Access Healthcare to in their village	Access MHU for personal treatment
1	Yes but not working	Yes	No	Yes, but it's not good
2	Yes	Yes	yes	No
3	No	Yes but not using due to water issues	No	No
4	No	Yes	yes	Yes
5	No	Yes	Yes	No
6	Yes but not working now	Yes	No	No
7	No	Yes	No	No
8	No	Yes	Yes	No
9	No	Yes	Yes	No
10	No	Yes	No	No
11	No	Yes	No	Yes
12	No	No	Yes	Yes
13	No	Yes	Yes	No
14	No	Yes	No	No

15	No	Yes	Yes	No
16	Yes but not working now	Yes	No	No
17	Yes	Yes	Yes	No
18	No	Yes	Yes	Yes
19	No	No	No	No
20	No	No	No	No
21	Yes	No	Yes	No
22	No	Yes	No	No
23	No (Used to have one earlier)	No but is going to construct one now	Yes	No
24	No	No	No	No
25	No	Yes	Yes	No
26	No	No	No	No
27	No	No	No	No
28	No	No	No	No
29	Yes	Yes	No	No
30	No	Yes	Yes	No
31	No	No	Yes	No
32	No	Yes	Yes	No
33	No	Yes	No (they go to a place 5km away)	Yes
Total Yes of 33	4	22	16	6

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## 2. Sanitation

- a. The sanitation programme commenced around 2015, based on the proposal of the then President of the bioRe Association Board Mr. Sitaram. One person from the Association ( Mr. Suresh) is managing this programme.
- In the sanitation programme, the program officer would vet the farmer, check the space required to construct a dry pit toilet, the water supply for the same and also space for the septic tanks. Once the relevant criteria is met then the amount is sanctioned. However, it is important to note that bioRe Association does not support the 100% cost of the project. Each household is given a grant of a fixed amount of INR 10,000 (about 20% of the total cost of the project) only for the bioRe farmers.
- 50 toilets have been budgeted annually.

## Challenges

- a. There was an attempt to introduce Econsan dry toilets but there was not much interest and so that was discontinued.

## Farmers Perspective

All the farmers understand the importance of having access to toilets. Of the 33 farmers, 22 of them have toilets in their homes and some of them have taken financial support from bioRe for constructing the same. One farmer indicated that he is going to construct one soon. In other cases, it is important to note that they belong to the scheduled tribe community and have been practicing going out into nature for their nature's call for a long time. They also are not used to having a toilet inside the house. They said '*...I am unable to do it inside the house, it simply doesn't come out...*'. It seems to be a cultural aspect that needs sensitivity. However, another key aspect is the access to water in their area. Most of these farmers do not have toilets due to the lack of access to piped water near their homes. They have a well close by which is drawn to get water home and when there is a toilet, the need for water to maintain cleanliness and hygiene is much more. Due to the lack of adequate amounts of water, and due to cultural habits, the farmer is not using a toilet. In case bioRe is looking at ensuring all their farmers have toilets then they need to look into the aspect of water particularly in the summer months so that the toilet is used throughout the year.

### 3. Regarding Biogas

Financial support was given from 2008 until 2023 reaching out to over 3981 farmers. In the last couple of years only 5 biogas units were installed and in 2024 funding for Biogas has stopped and there is only a nominal funding for maintenance/ repair purposes (INR 7000) is being budgeted. According to the annual report, of the 300 plants that were monitored for their functionality, about 128 were not working for various reasons. This is close to 43% dysfunctional biogas plants. If all the 3981 were to be monitored then about 1712 units would be non-functioning which is significant. The carbon emissions then must be calculated only for 2269 units.

Only four out of 33 are really using the biogas facility which has been funded by bioRe Association. While most of the farmers understand the benefit of having a smokeless stove (chulla) the buy-in for a Biogas setup is limited. Most of the families these days have an LPG cylinder and a firewood stove which is providing the necessary infrastructure for cooking purposes. Easy operations are definitely better in those cases. Moreover, the GOI has provided subsidised gas cylinders to people under the Pradhan Mantri Ujjwala Yojana (PMUY). Therefore the claim of Carbon dioxide emissions reduction needs to be verified based on how many biogas centres are really being utilised on an annual basis. Biogas needs a certain level of infrastructure in that there is a need for having cows/ buffaloes that would provide adequate dung, there is a need to have running water facility and space to organise the entire set up. Furthermore, the farmer needs to spend in setting it up as well as its maintenance in case there are any blockages and the farmer is not willing to do the same. A combination of both these factors has led to a reduced usage of biogas. There must be an alternative strategy besides Biogas that must be explored to address the Carbon emissions aspect of the sustainable cotton standard.

## Education Component

Education is the strongest way out of poverty and for the same reason education is a key component that is central to the community development programme that is undertaken by bioRe Association. The education programme was one of the very first initiatives of the association in 2004. Based on the engagement with the farmers at the grassroots, it was evident that there are no local schools particularly in the tribal regions. Furthermore, it was evident that the culture of going to the school, having a set routine for the children was missing within the community. The then top management felt that it is important to commence a school where the children are attending classes regularly. Therefore, the Animation schools (which are primary schools from Lower Kindergarten to 4th Standard) were set up in various communities. The teacher is a local person who is educated and is able to speak the local dialect and is familiar to the community.

The ITI and bioRe Public School commenced in 2014, about 10 years after its founding. The public school and the ITI were developed in an attempt to fill up the gap within the education system. Once the student finishes the animation school, they do not have middle and higher secondary schools and therefore a public school seems necessary. ITI was also set up for those adolescent children who did not complete school education to learn a skill that would help in accessing new job opportunities. In all under the education component there are three components and these details are shared below.

However, the present education system is outdated and needs to be updated. Farmer children for the Nimar region need special attention and therefore a new strategy needs to be developed such that true capacities of the children and women are improved upon through education. Child labour is rampant in the region since agriculture is a family enterprise, the child pitch in to support the family thereby reducing labour costs. Remei recently conducted a study to understand the same. In order to make the community self-reliant and aware, education is the key instrument through which progress and prosperity can be achieved.

There are three key subcomponents through which bioRe provides access to education to the farmers.

### 1. Animation School

1. The Animation School programme commenced in 2004. Since most of the farmers are remotely located where distances are quite significant, from tribal backgrounds, with very basic amenities, willingness to travel and teach students by other skilled teachers is less.

2. bioRe Association identified locations where there are several organic farmers and set up schools in that region, locating it in such a way that there is easy access to the schools by the children.
3. Mr. Jitender who is incharge of the Animation School program informed ...'The parents of the children had no idea that education is critical and the children need to be nurtured from a young age. The idea was to link the children to the school and provide them with basic education. Therefore, a person from within the community is identified and made responsible for undertaking the job of teaching and mentoring the children...'
4. The land is given to the animation school by the farmers and the local teachers are hired for these areas. Mr. Jitender who has been managing the Animation schools since 2012 regularly monitors the schools by visiting them and ensuring that the classes are run as scheduled.
5. There are 7 schools in the Maheshwar zone, 6 in Kasrawad zone, 3 in Bhagwanpura zone and 2 in Badwani zone. In all there are 18 animation schools that are operated by biore Association. The school timings are from 9am to 2pm everyday except on Sundays.
6. There are 33 teachers and 2 project leaders managing the Animation schools across the various zones.
7. At times, the animation school also acts as a space to discuss organic farming techniques with the farmers. Also, the school teachers are requested to facilitate sale of the seeds to the farmers. This year the school teachers were given 400 packets of seeds to be sold to the farmers.

## Challenges

- a. While the animation school is open to all the children in the zone, the distances between various communities and the location of the school are significant. Therefore, not all children are able to access the animation schools.
- Absenteeism is frequent mainly because the parents of the children would prefer taking the children to their work area where they can keep an eye on them as well as feed them on time. When they have to go to school then they need to be dropped off and brought back but if parents are not at home it's difficult to manage this.
- Girl children are not attending school, frequent parent teacher meetings are being organised, at least 7-8 PTA annually to address the needs of the students and the parents in order to facilitate attendance of the children.

- Self Help Groups are also not working in interior regions. There is a need to support a strategy for developing business models for livelihood diversification in those regions. Once the family is financially secure, the women can at least focus on educating the children and building the family. This gap is translating into all spaces of the family.
- According to Mr. Jitender, in general all animation schools are doing well but about 12-15 % which is about 2-3 schools are doing very well. Data for the Animation school is yet to be digitised for further analysis. However, when the children of animation school join bioRe Public School, the capabilities of the child are not at par for the same age group. It is lower by at least two classes. Special support needs to be provided for those children that graduate from Animation schools and join public schools. An adequate solution to address the capabilities of the students from animation school must be arrived at; else the impact of the child when shifted to the Public school will be immense and irreversible.

## Future Possibilities

- After 20 years of operations in an area, it is important to understand why the state of the communities are still the same. It is paramount that the strategy for animation school be revisited to comprehend clear challenges and ways to mitigate such that the next generation is empowered and there is growth at both the community level and the household level.
- Redefining Animation School models is important. An in-depth evaluation of the efficiency of the school, using OECD - DAC method, needs to be undertaken.

## 2. ITI vocational Training Centre

- a. The vocational training centre commenced its operations in 2017-18 by applying to the State Council for Vocational Training. In 2022, bioRe Association has also been empaneled under the National Council for Vocational education and Training (NCVET). It has a mandate of having at least four trades.
  - a. Computer Course : Computer Operating Programming and Application (COPA)
  - b. Electrician course
  - c. Wireman Trade
  - d. Sewing Technology

- There are about 36 students in the electrician course and about 18-20 students are regularly attending classes. The first batch exams are completed as on date.
- There are only 3 persons working in this ITI.
- Currently, the ITI/ vocational training center has been running in the school premises, and Biore Association owns land for both the school and training center.
- The courses can be taken up in the public school premises since it has the basic infrastructure.
- Presently the students are paying a fee of INR 35,000 for a two year course specifically for the electrician course. They avail government scholarships for the same. (<https://www.msde.gov.in/en/organisations/ncvet>)

## Challenges

- The number of students in Khargone district are not enough to work out a viable model for the operations of the ITI. Some other ITI in the district have also shut down due to the same reason.
- Salaries of the trainers are really less. This leads to a high attrition rate of the teachers. This impacts the quality of education rendered.
- Absenteeism is another aspect that needs to be addressed. Only 50% of the students are attending classes on a regular basis.

## Future

1. Viability of vocational training centers needs to be assessed. The Board of bioRe Association needs to decide based on the viability.
2. Collaboration with government schemes for grant support and infrastructure development and the operations of the school can be explored.
3. Forward linkages for job opportunities is essential for making the programme attractive. Without jobs, ITI will not be of much value to the people.

## 3. bioRe Public School

- A. The bioRe Public School (BPS) was set up in 2014 and the first batch of 10th Board graduates passed out in 2024. BPS is located 10 Km from Kasrawad and is on a 6 acre property with all

the necessary facilities for its operations. There are 460 students in the school with 30 teachers and 20 non-teaching staff. The Covid pandemic has created a minor setback in the attitude and capacity of the students since most of them were directly promoted without any exams.

- B. Of the 460 students, there are some who are promoted from the animation schools and the others have taken direct admissions. Since the school is a privately owned and run school, it charges a nominal fee from the parents (364 students pay the fee). The fee ranges from INR 12,000 for pre-primary and goes up to INR 20,000 for 10th Standard.
- C. According to Ms. Reena Tak, the principal of the school, says... 'In general the school is having a positive vibe, parents are quite responsible, efforts are rewarded, animations students do very well in sports and other physical activities. The school has a defined calendar where all the activities for the month and week are defined...'
- D. The school is attempting to follow the CBSE model of bags free Saturday where the children will come to school and undertake extracurricular activities like debate, essay writing, life skills training, composting, and learn about drip irrigation in the demo farm. There are various clubs within the school such as gender equality club etc. The school also organises educational tours. So far they have visited Sanchi to see the milk processing plant, they have visited bioRe Association and also the Museum.
- E. The students coming in from Animation schools are transferred to the Hindi medium of the bioRe Public school. Remedial classes for these students are organised to get them at par with the other students.

## Challenges

1. Due to Covid 19 pandemic, the students could not attend classes for the entire duration. The access to good internet connection was not there in most cases and in other cases, the parent could only spare a couple of hours on the phone for the online classes. Furthermore, if there were more than one child in the house then it would become another issue. Insofar as the student goes, the learning capabilities had reduced in the same time, sitting sincerely in a classroom for five hours at a stretch became difficult once the classes commenced, students forgot how to read and write, pronunciation was limited and the language became abusive. Basic knowledge of numbers and mathematics and basic literacy took a big hit. The year of 2022-23 was all about working with the children to overcome the time lost due to the pandemic.

2. Distance is a huge challenge for both the teachers and the students. Furthermore, finding students to increase admissions for the school is also a huge concern. Presently, there is a bus that has been organised by bioRe Association to support the transportation for the school.
3. Having adequate income to be able to pay fees for the ward besides the transportation charges is essential for the household. Since the government school offers free education to the children under the right to education, parents from lower-middle class background are preferring to send children to the government schools.
4. Strength of the student is a challenge. The finances of the school are completely met by the fee that is collected. For easy operations of the school, about 500 students are required to break even. Making the school attractive to the students and teachers alike is paramount.
5. English, Science and Maths are the pain points for most of the students in the school. Finding good teachers for these subjects is proving to be challenging.
6. Finding good teachers, particularly women teachers, who are willing to travel to the school is becoming challenging. Lack of residential facilities is limiting the opportunity of finding and retaining skilled teachers. Presently there is an attrition rate of 35% amongst the teachers.
7. Salaries of the teachers are another issue. Ms. Reena Tak informed that the salaries are not at par with the market rates and is another reason for the attrition.

## Future

- There is a need for a better library facility, school needs smart boards, a computer lab with better intra and internet facilities.
- One psychological counselling therapist is required for the school who can constantly engage with the students and ensure that they are mentally healthy.
- Middle and High school students need really good teachers, it is at this stage that they need to work with the students and ensure that there is a 100% pass percentage in the 10th Boards.
- Having a distinct marketing strategy for enrolling the students in the school is important.
- Innovative education techniques that are inspired by alternative schools must be explored. The curriculum can be revamped with some external support.

## Innovation Component

The innovation component primarily focuses on the adoption of new technologies for organic agriculture. If we look at the questions that were a part of the in-depth interview, it all points to the aspects of digitalisation, the potential it has and offers and data management using digital tools at a community level. A budget of 18,400 CHF was allocated for the year 2023-24 to develop a farmers application.

Most of the farmers are not educated beyond middle school and therefore has led to the use of digital gadgets in a limited manner. Presently, several of the farmers have a phone which is used to be connected with others, but very few have a digital mobile phone which can be used to capture data digitally. There were 50 quotations that were generated using Atlasti where any and all quotes on digitalisation were coded. Only one farmer was not positive about digitalisation since he never used it. Another farmer informed me that he was not comfortable with digitalisation and he recorded all his data in a register. He also informed '*...I am not comfortable with digitalisation so that's why I write all data in register. I don't want anything new , I just like what I have been doing....*';

However, here are some quotations from the responses that were received when asked the questions of digital openness and their willingness to share their data with everyone else. '*...digitalisation is necessary because it is very useful in the current situation. It saves much time....*'; '*...Digitalization is good for the new generation. Everyone in the family should be educated (to access digital). Digitalisation should be there so that everyone will understand it...*'. '*...Yes I know the importance of digitalization, Everyone will get to know ( if we will share our data with others)...*'

A farmer who has been practicing organic cotton farming for the past 25 years said '*... Yes we are willing to do data analysis, although we haven't done it yet but we are interested....*'. Another tribal farmer responded saying '*...Yes, we are willing to share data and update the data as per approximate numbers - I know how to use mobile, I can share Aadhar card, I can read OTP, yes, everything is online, yes, we are willing to learn to use the mobile...*'. All the farmers echoed one key aspect that in the current scenario, digitalisation is the way forward and they are willing to support any and all aspects pertaining to digitalisation so long as there is mutual benefit preferably in the short term and also in the long term.

The farmers are also happy to receive information and training via video, they are happy to learn about the package of practices online '*...About -POP - yes, we can do, we must do it, we must have a track of work , in how many days we put water, we applied manure we will get to know...*' '*...The benefit of digitalisation is audio (sound/voice) quality is good (aawaj achhi aati hai) and transaction services are good (paise ka len-den ho jata hai)/...*' Citing the importance of saving

time the farmer said '*...digitalisation is necessary because it is very useful in current situation. It saves much time...*'.

Some farmers, having foresight and the benefits said '*...It is beneficial for time saving and we gain knowledge from this. Farmers also taking help from the internet. It is on the top level. YES, digitalization is necessary because here we save our all data and any information....*' '*...We need support with - we do not have time to make a note of all the costs of labour , if we digitise then its easy to enter and keep a track of it, yes, I am interested, I am happy to share the various pests/ illnesses that our crop has...*'. Another farmer also said '*...Digitalisation is good and bad also , good is time saving and bad is wastage of money . We get many information like seed , and can do transaction and exchange of cash . We also want to share information because it is good and beneficial . We should do . It plays a major role when we share information because from it will get profit and farmer also get information . If we hide information then we get loss and from this no one can get information . If bio re make group ,then we will learn about this and use watsapp , if son will help ...*'; '*...Yes, we are interested in knowing POP (packet of Package); Yes, we are ready for data analysis of our data; Yes, we are ready to share information with others; If we share information with others we will get information; Yes, we are willing to share information (for making schemes); Yes, we are willing to share actual data and information...*'

In general, all farmers are happy to share their farm data with the rest of the community to help analyse the potential process and strategies that have worked for them. They are open to adopt new technologies and explore the future possibilities of the digital world. There is a willingness to share accurate data since it will impact production in the long run '*...Yes, ready to share the information, in case if there's any benefit somehow in production, I will share it with everyone. I will give accurate data...*'.

There is a strong aspect of Self- Reliance that emerges from the responses that were received in this component. For instance one of the farmers said '*...When we share the data of organic farming with others, the other farmers will get to know/ benefits about less costs in organic, he can easily make preparations and there is less effort...*'. Here the farmer has a clear idea about the effort that needs to be undertaken at an individual level for organic to succeed but through digitalisation, there is adequate information which would benefit others and that knowledge will lead to self - reliance and empower the farmer to make informed decisions. Another farmer shared that '*...We need support with - we do not have time to make a note of all the costs of labour , if we digitise then its easy to enter and keep a track of it, yes, I am interested, I am happy to share the various pests/ illnesses that our crop has...*' implying that they need support from bioRe Association facilitate in the implementation digital tools for self reliance.

Another aspect that needs to be highlighted here is that all the farmers are relying highly on the extension officers for their information. While the farmers are attending training through the cycle

of the cotton cultivation, they are definitely not attending all of them and that gap in the knowledge is being facilitated by the extension officers who frequent their homes for various purposes. On one hand, there is a critical question of how often the extension officers are being trained and updated regarding the new technologies and practices that are emerging in organic agriculture and on the other hand, do they have adequate material to train the farmers on the same. This gap and the dependence on the extension staff can be addressed using digitalisation. Content (both audio and video) can be shared in various formats directly with the farmers through these tools. This will help the farmer in having a vivid understanding of the potential strategies and solutions that can be adopted in increasing productivity and incomes.

In so far as the institutional mechanism for innovation goes, there is one person Mr. VishwaKarma (aka Karmaji) who is incharge of the same and is working with the other team members within the Empowerment team to digitise the data that is already coming in (but not systematically captured) under various components. Mr. Karmaji was appointed to undertake this by the CEO of bioRe foundation with the vision that the data that is being generated on a daily basis is recorded and analysis can be undertaken to see the trends and other aspects. Development of a digital application to map all the data at an institutional level as well as at the REmei- bioRe community of farmers would also facilitate in mapping and monitoring results. It would also facilitate decision making both at an individual level as well as at a regional level. Further steps in this direction are yet to be taken and therefore there isn't much to be documented in this component since it is in its conceptual stage.

Moreover, there isn't any initiative that has been undertaken at a regional level specifically for Organic farming in India and makes this component cutting edge in terms of its thought process and intention. Success of this component will truly bolster operations of bioRe Association and also help find solutions to scale up operations of bioRe - Remei partnership specifically keeping in mind the quantum of production and the overarching benefit of the farming community. Therefore, when the organisation is looking at Empowerment strategy, digitalisation will be an important and integral component.

One other key aspect of the Innovation component is that it would generate and show appropriate and adequate data to the community and the world thereby encouraging other farmers to partake and avail benefits of organic farming and agriculture. It would also assimilate information for all to access in that it not only includes the farmers but also consumers, new markets and funders/ donors for new projects and new ventures. Integrating Economic as well as social requirements will become easier. Possibilities will become limitless once a systematic process is set in place.

## Entrepreneurship Component

Based on the Human development Plan 2023, one of the four rights mentioned is 'Right to Work' and that has led to the creation of this component that focuses on the implementation of livelihood projects and initiates sale of food crops. The intention of this component is to explore the possibilities of facilitating Entrepreneurship avenues that would diversify incomes for the farmers and also empower them to explore new markets. One of the aspects in the sustainable cotton standard was about economic impact in that it is about undertaking programmes that would empower the farmers and the producer organisations to undertake initiatives that contribute to the economic improvement of the farmers. During the re-organisation of the cooperation between Remei and bioRe Association, the Entrepreneurship component emerged as a key component that would improve economic opportunities of the farmers by strategic investment in new ideas and businesses. Since this is a new component, there has not been any person appointed to oversee the same within bioRe Association. An incubation hub has been set up; a budget of 5000CHF was allocated for the same in 2023-24. It is important to note that two workshops were undertaken by the CEO with women's groups to see potential cases that are emerging in the community. Insofar as the responses of the farmers have been towards Entrepreneurship, it is important to observe that almost all of them identify the need for an alternative income. Some of the farmers within this group have ongoing business. For instance, one farmer has a Hospital, another runs a chilli manufacturing and packaging business, another has a Handloom business and would like to expand, one farmer has a grocery shop which had to be shut down due to a lot of lending within the community, another with a tractor renting business etc. While these are small initiatives, they have been taken up based on their skill and financial capabilities. All the farmers agree that they can take up something if they have access to Loans and receive financial support to set up the same '*...we need financial support to open it. if bio re will help financially then I will open my shop...*'

There are 3 key ideas that have emerged strongly in the responses by the farmers

1. **Dairy Processing unit** : Over 12 farmers have indicated interest in Dairy and buffalo rearing business. They perceive this as a good possibility since it is intrinsically linked to organic agriculture. Some of the quotations are below

*'...Buffalo rearing loan*

*'...yes, I identified our market of Mehtwada (dairy in case of milk)...'*

*'...We wants to have dairy farming and goatry and also want big economical help...'*

*'...I need a market so that I can go market and sell the milk...'*

*YES, I WANT to develop a women enterprise for milk production.*

*'...Yaa we can start Animal husbandry farming and dairy farming I am interested...'*

*'...Yes, I am interested in setting up a dairy farm (cattles/ buffaloes)...'*

*'...We need money for set up any business like grocery ,dairy farm .we had planned but not have much money . We have a farm on road , where we can set up poultry farm ,women of family wants to do this business...'*

*'...Yes ,we want to open dairy farm...'*

*'...In current we are not having any business but we can open dairy farm . In future I want to set up an electric shop ...'*

Dairy farming and processing units have immense potential with high demand for Desi Ghee in both national as well as international markets. Every bit of the cow is beneficial for the growth and wellbeing of the farmer in that the cow can support in ploughing, provides milk and milk products that can be sold, its urine and dung is very good manure for the land. A subsidiary of an Organic input production company can also be set up in congruence with the Dairy processing unity.

**2. Grocery Store to sell organic produce:** Almost all of the farmers raised a concern about the 'other crop' which is cultivated after cotton is not getting an organic certificate and is also not having a premium or the market for the produce. In that regard, several farmers shared that it would be a good idea to brand the produce and market it at a local level to start with and thereafter explore potential new markets that would be interested in organic produce. Below are some of the quotations of the farmers indicating the same.

*'...We can easily do business on organic farming. WE can also keep grocery shop by the help of this....'*

*'...YES , we want to open small grocery shop ...'*

*'...We want to set up grocery shop and with this grains also ....'*

*'...Women can run grocery shop at home only...'*

*'...Yes, I am willing to participate in selling other organic crops....'*

*'...Yes, we want to open a grocery shop or hardware shop, but we have money issues. If I open any of the above shops, I want financial help....'*

*'...Yes, organic model should be marketed properly, and if there's market, we will do it, we need market (organic) for this....'*

**3. Stitching Centre :** There are a lot of women who are supporting farm related activities but also have some time to take up stitching business on the side. It is something that the women can do sitting at home and be connected to a larger group that will provide an income opportunity for the women. Below are some quotations indicating their interests.

*'...My daughter in law is working in company at gujrat . If bio re give stitching machine to us then we will do stitch work from our home...'*

*'...My wife is interested in learning stitching...'*

*'...Yes , we can do stitching and can open poultry farm...'*

*'...We want stitching center and for this we are agree to give our land and infrastructure...'*

*'...We can do a small set up like stitching center , dairy farm together...'*

*'...Garment shop (in village) – 2.5 to 3 lac/year...'*

Some other interests that came up was to set up a soil testing lab in the village that would help in monitoring the condition of the soil and provide appropriate advice on how to improve the soil. *'...We want soil testing facility set up that would support organic farming...'* *'...YES we need a soil testing facility...'* This would be particularly a good idea for organic farming.

In all, there is a keen interest in diversifying income utilising the existing potential of organic farming while maximising the benefits of the same.

## Farmer Participation Component

This component is one of the key components of the bioRe sustainable cotton standard that covers a very important aspect of the engagement with the farmers. Below are the list of aspects that are listed in the sustainable cotton standard.

- 1. The relationship between farmers and the organisation has been formalised.*
- 2. The organisation has started to work with mechanisms of farmer representation.*
- 3. A representational body and mechanisms have been developed which guarantee representation of each farmer.*
- 4. The system of information flow has become operational within the institutional set-up.*
- 5. The organisation has developed a Human Development Plan.*
- 6. The organisation is implementing a human rights-based approach.*
- 7. A person in the organisation is given responsibility to promote human rights education and to implement the human rights-based approach in the organisation.*
- 8. There is a joint evaluation of the progress to implement the human rights- based approach.*
- 9. Farmers are informed about the processes of participation.*

According to the Social Internal Control System (SICS) written by Vivek Rawal and A Joshi in 1/12/2022 there is a clear systematic approach of delivering the strategy for the above points. On paper the policies seem comprehensive (the policy is not being discussed here again since it will be repetitive, referred to the 2023 Human Development Plan and also SICS document of 2022) however there is no single human resource from bioRe Association who is delivering on this component so far. This is primarily being managed by the COO of bioRe Association and is supported by the CEO Remei India Ltd.

If we look at the above listed points and analyse the actions taken to deliver the same

1. There is a formal relationship between the organisation Remei India Ltd (which was erstwhile bioRe India Ltd) through the purchase guarantee agreement but now since Remei and bioRe are separate entities, one question that comes to mind is whether the same format will hold. Does bioRe Association need another agreement with the farmer to withhold the sustainable cotton standard. How is the sustainable cotton standard being implemented now?
2. Mechanisms of farmer representation are clearly elaborated in the policy. Furthermore, there are cluster level representatives and pocket representatives that are identified.
3. The stakeholder representative body (SRB) has been identified and there are 50 people who are a part of the SRB as prescribed in the policy.
4. There is no standard operating procedure for the systematic flow of information flow within the institutional setup
5. Yes, the organisation has a Human Development Plan
6. Yes the organisation is implementing the human rights based approach.

7. The person responsible is yet to be identified and given human rights education to be able to implement the human rights based approach.
8. Joint evaluation reports are not shared with the consultant
9. Farmers are informed about the processes of participation only 6 farmers out of 33 have confirmed that they have knowledge of the Farmer Participation model that is being adopted by bioRe.

In this regard, below are some of the responses we have received.

What do you think is the importance of farmer participation in BioRe? Do you think there is participation in the bioRe system?

- *'...Yes, but I do not know about farmer participation model. I do not know biore structure. I am not in contact with representative...'*
- *'...No, I do not know (names) about board members. I am not in direct contact of him...'*
- *'...YES , I Know the importance of farmer representation but I don 't have much time for this...'*
- *'...I am new to bioRe, I do not know much about farmer participation...'*
- *'...We don' t know any board members and wr knows only Mansingh bhai...'*
- *'...I do not know much about farmer participation, in general we are happy with Badrilal Bhai...'*
- *'...I don't know about the system how it runs. But when we go in meetings they said who is who. But later on I understand and explained that around each 30 farmers group has one CLR...'*
- *'...Do you know the names of the people in the Board of the BioRe Association? No we don't get it...'*
- *'...Now we don't doing participation...'*
- *'...He dsoment now about the biore system...'*
- *'...We do not know anything about election...'*
- *'...We knows about the person MANGAT BHAU (CLR) but don't know about his designation...'*
- *'...In meeting we enteract with CLR...'*
- *'...we can bring other farmers into organic farming by- bioRe team should come and speak at Panchayat (about organic farming). Conduct meetings at village. Tell them about organic farming...'*
- *'...No, I don't know about farmer participation (democracy in bioRe...'*
- *'...Farmers participation is definetly there in research and is visible on google. Representative should come together and in system and village representative should come together and joint center...'*

- *'...I am representative. I motivate to farmers for organic and solvee their problems also regarding seed Also supports farmers and company ,whatever is right for seed improvement. .*
- *'...To improve , the 2012 system should be implemented. The election was held but only one was selected...'*
- *'...We don't have any idea...'*
- *'...NO , we don't know the board members...'*
- *'...After see the good production , the farmers joined bio re...'*
- *'...I don't know about system , but I knows the CLR Bhaya Rayla...'*
- *'...We don't know much about this . We knows only Sitaram Bhai from bio re...'*
- *'...No, I do not know about farmer participation...'*
- *'...No, I do not know about farmer participation model...'*
- *'...NO , we don't know about farmer participation and also don't know about bio re association . we only knows Sitaram Bhai .And we were connected to bio re for 2 years only . I also don't have much time to become a trainer . We are doing work on Rajesh bhai shop since 4 years . Before 4 years we did labour work ...'*
- *'...NO , I don't have any information...'*
- *'...No, I don't know the names of board members, but we should know.I am the PR, CLR, and II (Internal Inspector; in Remei). But what is the sense of being designated when I don't know the members...'*

Based on the above quotations, it is evident that the farmers are not familiar with the 'Farmer Participation System and SICS' that was envisaged by the organisation and the bioRe sustainable cotton standard. Most of the farmers are familiar with the Cluster level representative (CLR) who is engaging with the farmers and is a local person known within the community. However, there is evidently a gap between the larger understanding of the participation model and the rights that are held by the farmers who are associated with the bioRe family. Only a few farmers who were a part of the in-depth interviews for the baseline, who have themselves been representatives and leaders within the board (SRB) and those that are educated are aware of the system that is proposed in the policy document. Furthermore, no written or verbal communication is undertaken with the farmers to explain the farmer participation in the system. The training reports have also not mentioned anything pertaining to 'farmer participation'. Even the annual report of bioRe Association did not report any or all actions/ activities under farmer participation. One question that arises here is that the new farmers and in-conversion farmers that join the Remei-bioRe family have no specific avenue to learn about the 'farmer participation model' and their rights with respect to the organisation and its operations.

It was interesting to note that the farmers are blissfully unaware of the grievance redressal system and election processes that are supposed to be employed for electing the board members of the bioRe Association. The rights and obligations of the board and the kind of feedback particularly the farmers' concerns that need to reach the board is also not explained to the farmers.

The other aspect that can be discussed under farmer participation is about the number of farmers that are under the bioRe family. As mentioned earlier, as per the list shared by Remei, in all there are about 1939 farmers that are associated which is merely around 0.005% of the population of Khargone district. This percentage indicates a significant disinterest in organic farming which is quite likely for various reasons. When asked how many farmers are practicing organic farming in the village, the responses were as below

- *'...There are 100 houses of the village and only 12 people are doing organic farming...'*
- '...Total farmers-125 and organic farmers-7 (7 farmers are practicing organic agriculture)...'*
- '...There are 50 farmers in our village and 10 to 12 farmers are associated with bio re...'*
- '...Here are 5 organic farmers out of 150 farmers...'*
- '...We have approx. 250-300 farmers in our village and around 4-5 farmers are practicing organic farming...'*
- '...There are three farmers doing organic out of 23...'*
- '...12-13/50 are practicing organic farming in our village...'*
- '...Not much effect in village. There are 03 farmer doing organic farming out of 125 farmers...'*
- '...We know the 5 to 6 farmers in village who is doing organic farming. If anyone comes to see on my farm always says that if there is saving then I also do this farming also 1 person joined after seeing me...'*
- '...Out of 100 , only 25 are doing organic...'*
- '...out of 300 , 121 are doing organic farming...'*
- '...25 out of 400 are practising organic farming in our village. In 2007 entire village was practising organic farming but now only 20-25 are practicing...'*
- '...30 / 1000 farmers in our village...'*
- '...Out of 300 , only 33 are doing farming...'*
- '...out of 300 , 25 framers are doing organic." There are 121 farmers , those who are doing organic ," Rakesh bhai told us...'*
- '...out of 250 , 33 are doing organic...'*
- '...Out of 200 , 25 are doing organic farming...'*
- '...Out of 40 , only 20 farmers are doing organic...'*
- '...Out of 350 , 20 to 25 farmers are doing organic...'*
- '...07/150 are practising organic farming...'*
- '...Above 200 farmers are in village and only one farmer is organic...'*

All this averages to about 12.8% of the village is practicing organic farming whereas the others are practicing conventional farming and/or growing BT cotton. Overall participation at a village level must increase since it is in the economies of scale where the concerns of the bottom line can be addressed. Several operations will become viable when there are more people associated with

bioRe. When the farmers were asked how to make other sign up for organic farming, the most common answer was as below

*'...Bio re should bring some schemes so with this farmers will join. They should do meeting together for some planning and schemes...'*

*'...If we work hard then we will get good production. People will connect from grant...'*

*'...If production will good so more farmers will join , and if there will be less production so farmers will less...'*

*'...Many people are not aware of this organic farming , so they are not doing...'*

*'...Only few are doing because of less production , rates, money . If they improves seed quality and Remei 's admin should change his behavior...'*

*'...I am designated only on paper and working, doing my job, but I am unaware of the system, who is the manager and who is managing the system that I don't know...'*

*'...we can bring other farmers into organic farming by- bioRe team should come and speak at Panchayat (about organic farming). Conduct meetings at village. Tell them about organic farming...'*

*'...Because of Ashok Chouhan ( Extention officer ) we joined biore there are not many farmers, who are practicing organic farming. There is nothing special regarding organic farming in the village...'*

This clearly implies that there is a potential opportunity to bring more farmers strategically into the organic farming/ agriculture ambit. The farmers have a clear understanding of the impact of BT and chemicals on the land but they are helpless since they are unable to cater to their needs with organic farming at this point. bioRe Association and bioRe Foundation along with Remei can find answers to these concerns and bring more farmers into organic cultivation.

Some of the other aspects that were covered in the questionnaire were pertaining to the willingness of the farmer to associate in coming forward to train other farmers and to participate in helping other farmers come into this path. In response, most of the farmers were positive about giving their time and energy in furthering the efforts of bringing in more farmers into the bioRe family. They were happy to share their knowledge, give their time and build up a whole network. There is a compelling need for awareness generation within the farming community regarding all the aspects pertaining to organic cultivation. It is paramount that bioRe Association works towards building strategies to bring in the much needed awareness and build participation from the ground up. The lack of understanding and awareness of the impact of their contribution to the bioRe family indicates that the farmer does not have ownership and a sense of contribution to their own future.

## Summary of Key Findings

Based on the five indicators that were mentioned in the methodology, a summary of the key findings is discussed below.

### 1. Dependence

The research analysis indicates that farmers associated with bioRe Association/ Remei India limited demonstrate a significant level of dependence on the organization. The dependence is primarily structured around access to seeds, organic certification, training, and market linkages. Farmers rely on bioRe for the provision of high-quality organic seeds, which are not readily available in local markets. There is significant dependence on input supply as well. Several farmers have requested that input be sold to them since it is becoming challenging for them to make at their farm or home. Farmers also rely on bioRe for soil fertility management training, and pest control guidance. To mitigate this dependence, it is crucial to enhance local capacity-building initiatives that empower farmers to source and manage their own agricultural inputs. This includes facilitating community-driven seed banks, promoting on-farm composting techniques, and equipping farmers with knowledge on pest-resistant organic farming methods. Additionally, they depend on the organization for organic certification, which is a key requirement for selling organic cotton at premium prices. The structured training programs provided by bioRe equip farmers with the knowledge to cultivate organic cotton, making them reliant on the association for technical guidance.

Despite this dependence, there are positive aspects, such as the gradual shift toward self-reliance among experienced farmers who have developed expertise in organic cultivation. However, newer farmers remain highly dependent on bioRe's resources and support systems. The dependence is also observed in terms of **market access**, as bioRe facilitates the sale of cotton, ensuring fair prices and eliminating the risks associated with market fluctuations. One farmer shared, *"We are with bioRe because we get seeds and medicine from them. They give seeds and take (pick up) cotton from home. When the bioRe team comes, they show us the demo and benefits step by step."*

However, some farmers feel the dependence is limiting: *"If bioRe does not provide seeds or stops buying cotton, we will be in trouble. We do not have alternative buyers who pay us fairly."*

On the other hand, another farmer expressed, *"I still don't know how to sell my cotton outside of bioRe. If they stop buying, I don't know where I will go."*

Another farmer expressed concern, *"We don't always get the seeds we want. Sometimes, we are given varieties that do not work well on our land."*

## 2. Income

Economic sustainability remains one of the most pressing challenges for organic cotton farmers. While bioRe provides a premium price for organic cotton, yield fluctuations and market uncertainties pose significant risks. The study highlights the need for diversified income sources beyond cotton farming to ensure long-term financial stability. Income levels among organic cotton farmers vary, with notable improvements observed among long-term bioRe-associated farmers. The premium pricing structure and guaranteed purchase agreements provide financial stability to farmers. However, income disparities exist between those fully converted to organic farming and those in the initial conversion stages. Farmers who diversify their crops and engage in intercropping tend to have higher income stability, whereas those solely reliant on organic cotton face financial uncertainties during off-seasons.

A key finding highlights that while organic farming reduces input costs in terms of fertilizers and pesticides, initial conversion phases may result in lower yields, affecting short-term income. Farmers who have been practicing organic farming for several years report better financial security due to improved soil health and higher yields over time. Despite the economic benefits, financial literacy remains low, and many farmers do not engage in systematic savings or investments. There is an opportunity for bioRe to enhance financial literacy programs to help farmers manage their income effectively.

A farmer who has benefited from organic farming said, *"Organic saves money. Conventional farming is expensive. If we do organic farming properly, we can make a profit and avoid debts."*

Conversely, another farmer voiced concerns, *"Organic farming is good in the long run, but initially, it was tough. The yield was low, and we had to wait longer to see the benefits."*

A frustrated farmer mentioned, *"The premium is helpful, but it is not always enough to cover our expenses. The prices in the market are volatile, and we don't always feel secure."*

Many farmers depend on bioRe's guaranteed premium pricing and advance payments to sustain their operations. While these financial mechanisms provide stability, transitioning to diversified income sources and financial literacy programs can help farmers become more resilient. Encouraging self-help groups, cooperative societies, and microfinance models will provide alternative means for farmers to secure funding for their agricultural needs.

Introducing complementary crops alongside cotton, such as pulses, oilseeds, and vegetables, can create multiple revenue streams for farmers. Moreover, developing value-added processing units at the community level—such as organic cotton ginning, textile weaving, or biofertilizer

production—can further boost incomes. Several farmers have requested that bioRe facilitate sale of other alternative organic crops along with cotton.

In addition to agricultural diversification, farmers require better access to financial services. Affordable credit, crop insurance, and savings schemes should be promoted to mitigate risks associated with yield losses and price volatility. Individual loans under the bioRe sustainable cotton standard are not being practiced presently. A new innovative way of giving credit must be developed to ensure support. Strengthening financial literacy through workshops and one-on-one mentoring can help farmers make informed economic decisions, ensuring they have greater control over their financial well-being.

### 3. Decision-Making

Decision-making autonomy remains a crucial area for improvement within the organic cotton farming ecosystem. Many farmers, despite their experience, defer major agricultural and financial decisions to bioRe experts or external advisors. Strengthening the decision-making capacity of farmers is essential for fostering a more self-sufficient and proactive farming community. The extent of farmers' decision-making autonomy is closely linked to their experience with organic farming. Long-term farmers exhibit higher confidence in making independent decisions regarding crop selection, pest control methods, and financial management. However, newer farmers, particularly those transitioning from conventional to organic farming, rely heavily on bioRe's guidance.

To enhance decision-making autonomy, farmers must be provided with access to accurate, timely, and actionable information. Expanding digital advisory platforms that offer real-time weather forecasts, soil health analysis, and market price trends while factoring inflation can enable farmers to make independent choices regarding their farming strategies.

Women farmers face additional challenges in decision-making, as traditional gender roles often limit their influence over agricultural choices. However, initiatives such as lead farmer training and women-focused educational programs are helping to bridge this gap. The presence of participatory decision-making structures within bioRe has been effective in involving farmers in discussions about seed selection, training programs, and market strategies, though further improvements can be made in promoting independent decision-making among all farmers.

*One farmer noted, "At first, I had no idea how to choose the right seed or manage my farm, but after attending bioRe's training, I feel more confident in making these decisions on my own."*

*A woman farmer shared, "Even though I work in the fields every day, my husband still makes all the major decisions. I wish I had more say in what we grow and sell."*

Another farmer complained, *"We are given training, but sometimes we are not consulted about key decisions that affect us directly."*

Additionally, leadership training programs should be introduced to encourage farmer-led initiatives. Establishing farmer committees that participate in decision-making processes—such as setting seed procurement strategies, determining community investment priorities, and negotiating better market terms—will empower farmers to take ownership of their agricultural future.

## 4. Participation

Participation is a fundamental aspect of sustainable development, and this study highlights the importance of increasing farmer engagement in decision-making processes, governance structures, and collective agricultural initiatives.

Farmer participation in bioRe Association's initiatives is relatively high, with structured engagement in training programs, field schools, and research trials. The participatory research approach, particularly in on-farm trials, has empowered farmers by allowing them to test organic farming techniques and provide feedback on best practices. The establishment of farmer committees has enabled grassroots-level decision-making, increasing the sense of ownership among participants. The current system of participation as mentioned in the bioRe sustainable cotton standard is truly limited since only 15% of the farmers were aware of the policy and they were representatives who were part of the system. Almost all farmers were well aware of the extension officer and few with the cluster level representative since he accompanied the extension officer but the link to other benefits that could have been availed through their association with bioRe was not clear to the farmers.

However, participation levels are uneven across gender and socioeconomic backgrounds. Women farmers and those from marginalized communities are underrepresented in leadership roles within the association. Participation rates could be enhanced by encouraging women and youth involvement in agricultural decision-making. Women, who play a critical role in farming activities, must be included in leadership positions within farmer cooperatives and committees. Similarly, engaging young farmers through technology-driven solutions, modern organic farming techniques, and entrepreneurship opportunities will ensure the continuity of sustainable agriculture.

Encouraging greater participation among these groups through targeted interventions could enhance inclusivity. Another key challenge is ensuring sustained participation beyond initial training sessions, as some farmers gradually disengage due to time constraints or competing priorities. Additionally, promoting farmer-to-farmer learning models can be highly effective in increasing participation. Organizing knowledge exchange programs, where successful organic

farmers share their experiences and best practices, will inspire more farmers to actively engage in bioRe's initiatives and make informed farming choices.

A farmer expressed, *"We get information from bioRe. Apart from bioRe, we don't have any other source of knowledge. Their training helps us make informed choices."*

Yet, another farmer disagreed, *"They hold meetings, but only a few people are allowed to speak. Many times, our concerns are not fully addressed."*

## 5. Self-Confidence/Awareness

Self-confidence and awareness levels among farmers have improved significantly due to continuous training and engagement with bioRe. Farmers who have been with the program for a longer period demonstrate higher confidence in handling organic farming independently. The exposure to modern organic farming techniques, combined with the use of biodynamic calendars and pest management strategies, has empowered many farmers to take proactive measures in their agricultural practices. The ultimate goal of bioRe's initiatives should be to create self-reliant farming communities that can sustain themselves beyond the direct support of external organizations. Self-reliance is a multifaceted goal that encompasses economic resilience, knowledge empowerment, and social cohesion.

Building self-reliant farming communities starts with education. Very few educated farmers had the self confidence in taking up new entrepreneurial initiatives. In general, when asked they responded positively but they were vividly aware of their limitations and the extent of support that was required to take up entrepreneurship.

Awareness of the environmental and health benefits of organic farming is high among bioRe farmers. Many farmers acknowledge that organic methods have improved soil fertility and reduced health issues associated with chemical pesticide exposure. However, self-confidence in marketing and negotiating prices outside bioRe's support system remains low. While bioRe provides market linkages, there is a need to train farmers in direct marketing and cooperative selling to enhance their long-term self-reliance.

A farmer reflected, *"We used chemicals before, but now we understand how organic farming improves our health and soil. We have fewer illnesses and better yields."*

Farmers must be equipped with lifelong learning opportunities that cover organic farming best practices, financial management, market analysis, and climate adaptation strategies. Strengthening local agricultural extension networks and integrating technology into education programs will ensure that farmers have continuous access to new knowledge and innovations. Farmer

cooperatives, self-help groups, and local governing bodies should be strengthened to take ownership of key agricultural processes such as seed selection, bulk purchasing of inputs, post-harvest management, and marketing. These community structures should function independently, ensuring long-term sustainability beyond bioRe's direct involvement.

## Conclusion

The research findings indicate that bioRe has played a transformative role in empowering organic cotton farmers. While dependence on bioRe for resources and market linkages remains high, there is a gradual shift toward self-reliance among experienced farmers. Income stability is improving, though initial conversion challenges persist. Decision-making capacity is increasing, particularly among trained farmers, though women and marginalized groups require additional support. Participation in bioRe's initiatives is strong, but sustained engagement and inclusivity need to be enhanced. Lastly, self-confidence and awareness about organic farming benefits have grown, yet marketing skills and independent business strategies remain areas for development.

By strengthening local knowledge systems, expanding diversified income opportunities, enhancing farmer participation in decision-making, and fostering financial independence, bioRe can create a more sustainable, resilient, and empowered farming community.

Moving forward, targeted strategies should be implemented to address each of the five key indicators outlined in this conclusion:

1. **Reducing Dependence:** Promote seed sovereignty, financial independence, and local resource management to ensure farmers can sustain organic practices independently.
2. **Enhancing Income Stability:** Introduce diversified cropping systems, value-added processing units, and better financial instruments to mitigate economic risks.
3. **Empowering Decision-Making:** Equip farmers with digital tools, leadership training, and market intelligence to make informed agricultural and financial decisions.
4. **Strengthening Participation:** Increase engagement of women and youth, foster participatory research, and promote farmer-to-farmer learning networks.
5. **Fostering Self-Reliance:** Build resilient agricultural institutions, integrate climate-smart farming techniques, and encourage innovation within farming communities.

To maximize empowerment, bioRe Association could focus on strengthening financial literacy, expanding decision-making opportunities for women, fostering sustained participation, and building farmers' confidence in independent market engagement. By addressing these areas, the association can further enhance the long-term sustainability and self-reliance of organic cotton farmers.

## Conclusion

This baseline study has provided a comprehensive report of bioRe Association India's efforts, highlighting its significant contributions to sustainable organic cotton farming and rural development. The study underscores the effectiveness of bioRe's initiatives while also identifying areas for further improvement.

One of the most compelling findings of this study is the tangible improvement in farmers' livelihoods through bioRe's sustainable agricultural programs. Farmers have benefited from training, market access, and fair pricing. However, continued efforts are required to strengthen financial resilience, seed availability, and independence in decision-making. The findings also emphasize the need for innovative solutions to improve organic yield, ensuring that farmers reap economic benefits alongside environmental sustainability.

### The Role of Stakeholders and Collaboration

The journey of organic farming is one of resilience and growth, and this study reaffirms the potential of a collaborative approach to achieving sustainable development. Moving forward, a well-structured, evidence-based strategy that incorporates the recommendations of this report will enable bioRe Association to build stronger, self-sufficient farming communities while continuing to champion the principles of sustainability and equity in agriculture.

As the organization looks ahead, the continued collaboration of stakeholders—including farmers, researchers, policymakers, and industry partners—will be instrumental in driving progress. Long-term success will depend on the ability to adapt to emerging challenges, embrace new technologies, and maintain an unwavering commitment to ethical and sustainable farming practices. With a clear roadmap and a shared vision, bioRe Association is well-positioned to make a lasting impact on the future of organic agriculture.

Furthermore, fostering local leadership within farming communities will be an essential factor in ensuring sustainability. Building capacities of local leaders, cooperatives, and self-help groups can create decentralized decision-making structures that empower farmers to take ownership of their agricultural choices. Encouraging knowledge-sharing and peer-led training programs will also strengthen community-based solutions to agricultural and economic challenges.

### Strategic Planning for Future Growth

This study serves as a foundation for future strategic planning and intervention by bioRe Association. While significant progress has been made, the road ahead requires dynamic, farmer-centric solutions that address both economic and environmental challenges. By integrating

innovation, policy support, and farmer empowerment, bioRe Association can continue to be a pioneer in sustainable agriculture. One of the key components of this transformation will be a focus on regenerative agriculture. While organic farming has proven benefits in reducing chemical usage and promoting biodiversity, regenerative agriculture goes a step further by restoring soil health, improving water conservation, and increasing resilience to climate change. By integrating regenerative principles into training programs and field practices, bioRe Association can lead the way in pioneering new methods for sustainable cotton production.

### **Market Linkages and Policy Advocacy**

Market uncertainties remain a challenge for organic farmers, and bioRe's role in strengthening market linkages will be crucial moving forward. Expanding partnerships with ethical brands, promoting diversified crops, and integrating value-added services can enhance the financial stability of farming households. Policy advocacy for better incentives for organic farming at the governmental level should also be explored.

At the policy level, advocating for stronger government support will be crucial. Increased subsidies for organic fertilizers, research funding for non-GMO seeds, and improved market infrastructure can make organic farming more viable at a larger scale. Collaborating with policymakers to integrate organic farming into national and state agricultural development plans will ensure that farmers receive the necessary institutional backing to sustain their efforts.

### **Building Resilient Farming Communities**

BioRe Association's impact extends beyond agriculture—it is about creating resilient, self-sufficient communities. Holistic rural development programs that integrate education, skill-building, and entrepreneurship can empower the next generation of farmers to lead sustainable livelihoods. Encouraging youth participation in agriculture through mentorship programs, access to resources, and exposure to innovative farming techniques will be essential for the long-term sustainability of organic farming. Education and healthcare interventions, though impactful, can be expanded further to create a more holistic development model. Strengthening rural education infrastructure, offering vocational training, and improving healthcare accessibility will contribute to long-term community resilience.

The study also highlights gaps in training methodologies and the need for digital tools to enhance knowledge transfer. Developing technology-driven advisory services, mobile-based training modules, and data-driven decision-making systems can enhance the effectiveness of bioRe's farmer support programs. Moreover, investing in regenerative agriculture and climate-resilient farming methods will be vital for ensuring long-term sustainability. Additionally, the role of technology cannot be overstated. Leveraging artificial intelligence and machine learning to

optimize farming techniques, predict weather patterns, and assess soil health can drastically improve efficiency and yield outcomes. The use of blockchain for supply chain transparency will also help ensure fair pricing and ethical trade practices in organic cotton markets.

### **Ensuring Financial Stability for Farmers**

Financial stability remains a major concern for organic farmers. Even with premium pricing for organic cotton, lower yields and unpredictable market conditions pose risks. A multi-faceted approach involving crop diversification, microfinance initiatives, and innovative financial products can help farmers mitigate risks and create more stable income streams. Introducing insurance schemes for organic farmers and facilitating access to low-interest loans can also provide the necessary economic security to encourage more farmers to transition to organic agriculture.

The research has revealed the deep reliance of farmers on bioRe for technical and financial support. While bioRe's commitment to its farmers is commendable, it is crucial to cultivate greater self-reliance and entrepreneurship among the farming community. By fostering cooperative models and financial literacy, farmers can achieve more autonomy in their agricultural practices.

In conclusion, the future of organic cotton farming through bioRe Association depends on a combination of economic, environmental, and social interventions. By fostering innovation, advocating for policy support, strengthening community engagement, and integrating sustainable agricultural practices, bioRe can continue to create meaningful and lasting change in the lives of farmers. With a clear commitment to equity and sustainability, bioRe Association is poised to be a transformative force in the field of organic agriculture.

# Recommendations

## 1. Establishing a Clear Vision and Strategic Direction

### Building a Core Leadership Team

To ensure a well-defined vision and structured decision-making process, bioRe Association must establish a core leadership team responsible for overseeing key operational strategies. This team, composed of department heads and strategic advisors, will work alongside the Board to align the organization's growth with long-term objectives. This structure will enhance efficiency, accountability, and responsiveness to emerging challenges.

### Strengthening Vocational and Educational Components

Programs such as vocational training and animation schools need a comprehensive review to optimize their impact. These components must be reimagined with a future-focused approach to ensure their alignment with sustainable farming, entrepreneurship, and rural development. Integrating digital learning tools and industry collaborations will enhance the effectiveness of these programs and provide better career prospects for beneficiaries.

### Diversifying Farmer Income Sources

For bioRe farmers to achieve financial stability, it is crucial to move beyond cotton cultivation. Developing market linkages for organic crops such as wheat, chickpea, and soybean can create alternative revenue streams. Strengthening dairy farming by establishing milk collection centers and investing in value-added dairy products will provide an additional layer of income security while supporting organic farming practices through sustainable manure production.

### Improving Seed Quality and Accessibility

Providing farmers with high-quality seeds for cotton and other crops is essential for improving productivity and sustainability. The seed project should be expanded to include multiple crops, eventually transitioning into a farmer-owned seed company that can cater to a national audience. This initiative would create a self-sustaining seed ecosystem, reducing dependency on external suppliers.

## **Developing a Climate-Resilient Crop Insurance Program**

Climate change poses a severe risk to organic farmers, making crop insurance a necessity. BioRe must collaborate with government agencies and private insurers to develop a comprehensive insurance scheme. This initiative should ensure full coverage for farmers, protecting them against unpredictable weather conditions and market fluctuations.

## **Innovative Labor Cost Management and Sustainable Farming Techniques**

Mechanization and natural de-weeding strategies must be explored to reduce high labor costs. Lessons can be drawn from other agricultural models where ducks have been used for natural de-weeding. Implementing cost-effective solutions while preventing exploitative labor practices, including child labor, is essential for sustainable and ethical farming.

## **Leveraging Trust and Community Relations**

Over the past 20 years, bioRe Association has established itself as a trusted partner among farmers. This credibility must be leveraged to scale organic farming projects, develop model farms, and create a national movement for sustainable, self-reliant agriculture.

## **Strategic Growth for Aavaran and Handloom Weaving Communities**

Aavaran, though an independent entity, remains an essential part of bioRe's community development mission. Strengthening its market presence through a structured marketing and branding strategy will help ensure its sustainability. Given its role in preserving traditional handloom weaving and artisan crafts, Aavaran's growth must be actively supported to protect livelihoods and cultural heritage.

# **2. Strengthening Internal Team Synergy and Operational Efficiency**

## **Bridging Gaps Between Departments**

While the dedication of bioRe personnel is commendable, a structured approach is needed to align the various departments towards a shared vision. Some teams have clear aspirations but lack the necessary strategies and implementation frameworks to achieve long-term growth. A structured planning mechanism with defined performance indicators will ensure that all departments contribute effectively to bioRe's overarching mission.

## Ensuring Strategic Coordination Between bioRe and Remei India

At the grassroots level, there is significant integration between bioRe Association and Remei India. However, if the company and the association were to operate independently, both parties would face operational challenges. Ensuring long-term strategic coordination will help mitigate unforeseen issues and maintain seamless service delivery to farmers.

## Enhancing Resource Utilization

Currently, many bioRe departments operate in silos, limiting the potential for economies of scale and scope. Greater convergence in operations will ensure that resources—financial, human, and technological—are utilized efficiently. This can be achieved by fostering interdepartmental collaboration and optimizing resource-sharing mechanisms.

# 3. Building an Effective Farmer Communication System

## Developing a Feedback-Driven Communication Framework

Establishing a structured feedback loop with farmers will be instrumental in driving long-term improvements for both the association and the farming community. Farmers' insights must be actively sought, recorded, and analyzed to refine strategies and ensure their concerns are addressed.

## Utilizing Culturally Relevant Communication Methods

Since literacy levels vary among farmers, bioRe must adopt innovative communication strategies, including:

- **Folk Theatre and Songs:** Engaging storytelling techniques that make farming best practices relatable.
- **Posters and Visual Content:** Easy-to-understand infographics to simplify complex agricultural processes.
- **Short Films and Documentaries:** Video-based learning materials accessible via mobile devices.

## Enhancing Seed Project Awareness

The seed project and research initiatives at Syscom play a crucial role in farm productivity. However, farmers must adhere to recommended seed usage protocols to maximize yields. Ensuring clear communication on seed best practices through scientific demonstrations and localized advisory services will significantly enhance adoption rates.

## Rebranding bioRe as a Regenerative Organic Farming Entity

BioRe should reposition itself beyond traditional organic farming by incorporating regenerative agricultural principles. This rebranding effort should emphasize:

- Soil health and carbon sequestration
- Ethical animal husbandry
- Farmer and worker welfare

## 4. Implementing Digital Solutions for Transparency and Accountability

### Leveraging GIS for Farm Mapping and Data Analysis

Implementing Geographic Information System (GIS) mapping will allow bioRe to visually track organic farming areas, identify gaps, and analyze adoption trends. This data-driven approach will enable more targeted interventions and strategic expansion of organic farming.

### Strengthening Digital Governance and Documentation

Maintaining transparency in cotton production mandates requires digitizing operational processes. By documenting production cycles, supply chain movements, and farmer transactions digitally, bioRe can ensure greater accountability and provide real-time data for decision-making.

## 5. Institutionalizing Effective Internal Processes and Capacity Building

### Enhancing Skill Development for Staff

While bioRe's team is deeply committed to farmer development, structured capacity-building initiatives are necessary. Training programs focused on:

- **Communication Skills:** Improving engagement with farmers and stakeholders.
- **Strategic Planning and Implementation:** Strengthening execution frameworks within departments.
- **Critical Review Mechanisms:** Conducting regular performance assessments to refine program effectiveness.

### Strengthening the Role of Extension Officers and Training staff

Currently, extension officers and in some cases training staff serve as the primary link between bioRe and farmers. However, direct engagement from senior personnel within the Association is necessary to build deeper trust and understanding. Establishing structured field visits and participatory engagements will strengthen this relationship.

### Developing a Culture of Learning and Continuous Improvement

A structured documentation system should be implemented to record lessons learned from each agricultural cycle. This knowledge repository will enable teams to analyze what worked, what didn't, and how strategies can be optimized for greater impact in subsequent years.

The recommendations outlined in this report provide a structured roadmap for bioRe Association's continued growth and impact. With a strong institutional framework, empowered farmers, and data-driven strategies, bioRe can drive meaningful transformation in the organic farming sector, ensuring long-term sustainability and self-sufficiency for farming communities across India.

## About the Author

The study was conducted by Anju Manikoth, Director of AUM Consulting Services. Anju Reshma Manikoth is a seasoned Impact Consultant with 15 years of experience driving transformative change in the development sector, focusing on policy advocacy, project management, and strategic planning. She has collaborated extensively with government bodies, non-profits, and international organizations to design and implement initiatives aimed at empowering marginalized communities and fostering inclusive development. Her expertise in monitoring and evaluation is demonstrated through her work with the Transnational Institute (TNI) and Habitat for Humanity, where she evaluated projects based on the OECD DAC framework. As a Programme Manager with ActionAid Association, she led initiatives focused on building the Working People's Coalition (WPC), designing and executing knowledge-sharing platforms like the Urban Action School, and engaging with campaigns on sustainable development and social justice. Anju holds a Master's degree in Public Policy and Management from IIM Bangalore; another Masters from Erasmus University Rotterdam in Urban Management and Development and a Bachelor's degree in Architecture from the School of Planning and Architecture, New Delhi.

## Annexure 1: Key informant interviews

S.no	Name	Designation	Date of Interview
1	Aashish Joshi	COO, bioRe Association	13/06/24
2	Yogendra	Lead, Seed Research	14/06/24
3	Mahesh	Breeder, Seed Research	14/06/24
4	Gayatri	Trainer, Training component	14/06/24
5	Reena	Principal, bioRe School	14/06/24
6	Hidayat Khan	Manager, ITI	14/06/24
7	Jitender	Manager, Animation School	14/06/24
8	Sukhdev	Manager, Aavran	14/06/24
9	Ishwar Patidar	Lead, Research component	15/06/24
10	Vikas	Finance Officer	15/06/24
11	Suresh	Program Officer, Sanitation and Biogas Program	15/06/24
12	Sitaram	Former President, Board of bioRe Association, Farmer	15/06/24
13	Lokendra	Production officer	15/06/24
14	Vivek Rawal	CEO, Remei India Limited	15/06/24
15	VishwaKarma	Training	15/06/24
16	Asok Singh	Extension officer	15/06/24
17	Dr. Shahina	Head, Health component	23/06/24
18	Madhav Patidar	President, Board bioRe Association, Farmer	15/06/24
19	Nicola Roten	CEO, bioRe Foundation	23/06/24

## Annexure 2: Unstructured interview questionnaire

### Indicative Questions

#### Relevance

- Is the intervention doing the right things
- What are the various verticals that are covered by bioRe Association (BA)
- What is the population size of the beneficiaries that is catered by BA
- How were each of the verticals commenced - Education, Health , Innovation
- What are the team sizes in each of the verticals
- Was the design of the project appropriate
- To what extent was the community involved in the design and implementation of the project
- Were the responses tailored to the timely needs of the beneficiaries
- Do the interventions fit with other schemes/policies of the local government
- What is your perception regarding the quality of design of the project
- Is there any way it could be improved
- Has there been any adaptations and modifications since its commencement
- To what extent were the responses tailored to the local context and the priorities of the beneficiaries

#### Coherence

- was there any intention to work on the linkages for the sustainable development goals at the global level, or any link to the ESG goals for the company or at the national level is there any synergy with the national, state or local schemes and policies

#### Effectiveness

- What is the objective of bioRe Association - what was the process employed to define its objectives : management, human resources, financial aspects, regulatory aspects, implementation modifications or deviation from plans.
- To what extent is it achieving its objectives and what were the influencing factors to achieve the objectives
- How timely was the response of the various projects
- How well coordinated was the response
- Did the project address the gaps in the overall response
- Were there any initial targets planned? Were they achieved - what is your view of the effectiveness of the organisation
- Were there any unintended effects that were perceived over the years - both positive and negative
- what measures were undertaken to mitigate the unintended aspects

- how key principles such as equity, non-discrimination and accountability have been incorporated at all stages, from design through to results

### **Efficiency**

- How efficiently were the resources used - economic Efficiency
- Operational Efficiency
- Timeliness
- Overall efficiency in results
- Could anything have been done differently to maximize the available resources to meet project objectives

### **Impact**

- Has the intervention caused a significant change in the lives of the intended beneficiaries (short term and long term)
- What is the extent of impact of the interventions of bioRe association
- Has the intervention led to better productivity and income levels
- Were there any attempts to measure the extent of impact earlier
- Did the intervention cause higher-level effects (such as changes in norms or systems)?
- Is the intervention transformative – does it create enduring changes in norms – including gender norms – and systems, whether intended or not?
- Is the intervention leading to other changes, including “scalable” or “replicable” results?
- How will the intervention contribute to changing society for the better?

### **Facilitating and Hindering Factors**

- What were the facilitating factors contributed to the achievement of the project objectives
- What were the Hindering factors contributed to the achievement of the project objectives

### **Lessons Learnt and Recommendation**

- What were the good practices, lessons learnt and recommendations been identified from the project
- Project design
- Partnership Building
- Project Implementation

**Annexure 3 - Questionnaire for the Indepth Interviews with the Farmers** (will be inserted in the pdf file)

# bioRe Association India

Part 2 - Understanding farmers perspective; documenting their approach, strengths, limitations, challenges, aspirations and opportunities pertaining to the 6 Components of bioRe Association and to gain insights into their lives.

Questionnaire for In-depth Interview to be conducted with the farmers

In-depth Interview to be undertaken at the Household level (family unit)

## General Information

1. Name of the associated farmer:
2. Residential Address:
3. Phone number:
4. Year of association with bioRe:
5. Total number of people in the family unit (HH responsibility)
  1. In case of joint family :
6. List the people in the family, their name, age
  - A. Father
  - B. Mother
  - C. Wife
  - D. Son (s)
  - E. Daughter (s)
  - F. Brother
  - G. Others
7. What caste does your family belong to (SC/ ST/ OBC/ General)
8. Economic status? (APL/ BPL)
9. How long has your family lived and worked on this land ? Which year?
  1. What was the land size that that time?
10. What is the size of the land parcel owned by the household (total) (present status)
  1. On whose name is the title of the land registered in Government records (share only if you are comfortable)
  2. If there are multiple land owners then please share all the names and the quantum of land (name, land area)
11. What is the size of the land parcel on which organic farming is undertaken in acres
12. What is the size of the land parcel on which conventional farming is undertaken in acres
  1. What are the practices that are followed in conventional farming (what are the pesticides/ fertiliser used)
13. What is the land parcel on which organic cotton is cultivated ?
14. What are the other crops cultivated by the farmers household during the year? What is the land area on which they are cultivated ?

1. Kharif crop (name, land area)
  2. Rabi crop (name, land area)
  3. Summer crop (name, land area)
15. What is the yield quantity annually for the cultivated crops (approximately)
1. Wheat
  2. Corn/ Maize
  3. Soybean
  4. Chickpea
  5. Cowpea
  6. Pigeon Pea
  7. Groundnuts
  8. Others
16. What are the other assets of the family besides land
1. Number of vehicles (for instance - 2 wheeler, tractor, 4 wheeler etc.)
  2. House - Kacchaa/ Pucca (filled by the interviewer based on observation)
    - A. Number of people living in the house presently
    - B. Area of the house
    - C. Area of the khallas (area where they do post harvesting activity)
  3. Livestock
    - D. Number of
      - A. buffaloes
      - B. Cows
      - C. **Bullocks**
      - D. calf
    - E. Number of goats
    - F. Other animals
17. Are there any other fruit trees/ plants that the farmer has which generates income for the family? If yes then please list the trees
18. Who manages finances in your household?
1. Do women have a role in this? To what extent do women support in this? What is their contribution?
19. About Annual Income
1. What is the annual income of the family?
  2. What are the various sources of income in the family?
    1. From farm
    2. From Job (salary)
    3. From Sale of Milk, vegetables, fruit, flower etc.
    4. Others
  3. What is the income from farming annually?
  4. What is the income from Organic Cotton farming annually ?
  5. What is the income from sale of vegetables/ fruits/ others
    1. Where do you sell it (name of the market)

20. What are the main expenses that are incurred in a year
  1. For Organic farming
  2. For running a household
    1. Bills
    2. Education
    3. Health
  3. For other purposes
  4. For occasions
21. Do you have any debt/ loan?
  1. If yes, how much?
  2. For what did you borrow the money?
  3. Source?
  4. Interest rate?
22. How did you come to know of bioRe Association?
  1. Which year did you associate with bioRe.
  2. Did you ever leave and then rejoin bioRe (7 category only)
23. What has been your experience with bioRe so far over the years? Please elaborate
24. Do you have other family members who have separate contract with BioRe?
25. How many contracts are signed with this family?
26. What is the total land that is under each contract?
27. What do you understand from the word 'Empowerment'?
28. What do you think is required to empower farmers? And organic farmers in particular?
29. What according to you is important to empower farmer communities and their future generations?

# 1. Organic Agriculture

1. What according to you is organic agriculture? Please share your opinion on the same.
2. What according to you are the benefits of organic farming ?
3. What is the your intention for going organic, what according to you is the benefit of growing organic cotton?
  1. is it to ensure soil fertility,
  2. is it for better income,
  3. is it health or any other reasons?
4. What was the situation of your farm when you joined bioRe, what was the reason why you joined bioRe?
5. Can you please explain your association with bioRe in a step by step process from beginning to the end.
6. What do you want more to be done, how to support and why?
7. Are all your crops done with organic farming methods?
  1. What kind of inputs are you using in those crops
8. In how many acres are you practicing conventional farming?
9. Are you practicing this from self interest or are you doing it forcefully due to any pressure
10. Do you have a copy of the organic certificate for your farm?
  1. On whose name are you presently getting organic certification?
11. What are the various uncertainties that you are facing with respect to organic agriculture; **please elaborate**
  1. For instance rainfall, temperatures, pest, market price etc.
12. What is the name of the farmer who is directly involved in the **farming on your land** (management/ worker)?
13. What are the **challenges/ drawbacks** you are facing in practicing organic agriculture ?
  1. **For instance** - Costs
  2. Labour related
  3. Water related
  4. Knowledge related
  5. Others
14. **About Cost** : What is the **cost of cultivating organic cotton** annually? Approx.. per acre
  1. How much is the cost of labour in Cotton Cultivation annually
    1. Do you have any ideas on how to resolve the labour problem in the organic cotton farming?
  2. How much is the cost of Inputs in Cotton Cultivation annually
  3. How many cows/ buffaloes do you have that provide support in undertaking organic farming? What is the cost of maintaining them?
  4. How much are the other costs that are incurred for undertaking organic farming?
15. What is your **source of water supply for crop cultivation**? Mention the name of the irrigation source for the field
  1. **For instance** - Rainfed (how many acres)

2. Irrigated through canal/ river/ pipelines/ hire water/ open well/ tube well (**how many acres**)
16. What are the means in which you get **exposure to new practices** in organic farming? Radio?, Pamphlets? Other organisations, Youtube/ Social Media
  1. Do you want to get exposure/ learn about them?
  2. To what extent has bioRe facilitated this?
  3. **What type of knowledge would be helpful?**
17. What is the **role of the women** in your house in organic farming and in growing organic cotton?
  1. For instance in preparing inputs
  2. In doing weeding, cotton picking etc.
  3. Others
  4. What is the association of the women in your house with bioRe - what kind of activities is she involved in.
18. Do your **children support in farm** related work?
  1. If yes, what kind of support do they provide right now?
  2. what are your children's perception of organic farming?
  3. **Do they know what is organic farming and its benefits? Do they want to join any training? (Ask the children only)**
  4. Are they interested in continuing practicing organic farming?
  5. What support would they need in furthering your work?
19. After several years of organic farming and having social support (in terms of access to education and health) what is your current status? Are you happy at this point? What are your thoughts?
  1. Are there any changes in the living standard after practicing organic farming?
  2. Do you see any change in your income to be an organic farmer (less or more)? By how much?
20. In your understanding, what is the extent of difference between organic farming income and conventional farm income?
  1. Is the difference being met by the premium that is offered for organic cotton?
21. What are the crops you cultivate in your land? What is the income you are making from other crops? Mention annual income
  1. Wheat
  2. Maize
  3. Soybean
  4. Chickpea
  5. Others
22. How often do you undertake soil test to check the fertility? **Why do you think it is necessary**
23. What is the soil condition of the organic cotton farming (light, medium and heavy)
24. Do you practice Bio-Dynamic farming? **What do you know about Bio-Dynamic farming?**
25. Do you want to continue practicing Organic farming and Bio-dynamic farming?

26. What kind of impact you have seen in your community/ village due to organic farming ? Are you happy with the impact?
27. How many farmers in your village are practicing organic agriculture?
28. In case very few are practicing organic farming, then why do you think is it like that? What are the reasons?
29. Why are you still with bioRe? Please share. How is the association supporting you?
30. How do you think we can bring more farmers into organic farming? Any ideas?
31. Do you know about organic certificate and Transaction Certificate (TC) (Individual level) for your organic produce?
  1. If yes, do you have?
  2. If no, would you like to have one.
  3. Do you know how to get the certificate.
32. Are you aware of the effects of chemicals for your health?
33. What do you think is the **role of seed** in the organic farming? Do you need good quality seed research ?
34. What is the source of your seed (for instance bioRe or market (which company))
  1. For cotton?
  2. For wheat?
  3. For soybean
  4. Others
35. Are you happy with the productivity of the cotton seed provided by bioRe? Do you have any suggestions or what more would you require to improve it?
36. Please share honestly if you are an FFC (Full farm conversion) farmer? What inputs are you using in other crops?
37. So far you are selling organic cotton to bioRe, do you sell other crops with organic branding too?
  1. If not why?
  2. If yes, do you receive a premium for the other crops too ? And how much is the premium?
38. Are you accessing any government crop insurance scheme?
39. Are you accessing any other government schemes pertaining to agriculture?
40. What kind of information have you received from BioRe team?
  1. Who decides/ decided to sign the agreement with bioRe from your family? Is it a family decision? Or is it taken by the male father figure of the family? Do women have a say in this decision?
  2. What kind of preparatory work is required when you start in your first year?
  3. Who prepares the inputs in your household for organic farming?
41. Can you please share some **reflections of the training** undertaken by bioRe team (below are indicative leading questions)
  1. What kind of training and other support do you receive from bioRe team?
  2. Who from your family goes for training? Is that person directly involved in farming?
  3. How often is the training being conducted by the team?
  4. Who participate in the training from you household?

5. How much time do you have to give for the training? Does it interrupt in your activities? Or is it manageable.
6. Would you prefer the training be conducted in any other format?
7. Do you face any specific challenges in attending the training? For instance the distance travelled to reach the training location/ Access to transportation/ others?
8. Do you lose income when you attend training?
9. In case if you are not available for training, will you agree to send your other family members or agricultural labor for training?
10. Are women willing to participate in training program provided by a male farmer?
11. Are you willing to join the training provided by any innovative farmer on his own farm?
42. How often do your women participate in any activities pertaining to organic farming and organic training in a year? Is it easy/ comfortable for them to participate in this? Please elaborate.
43. Have you seen BioRe LTE, POR and Seed research ? Did you have a chance to visit the station for exposure?
44. Would you support bioRe seed research to improve quality to seed, would you like to work on it? Do you think it would help you?
45. Which type of seed do you need?
  1. Easy Picking
  2. Earlu Maturity
  3. More number of bolls
  4. Big Boll size
  5. Fully opened bolls
46. Would you like to participate in creating a self sustaining model of seed production for the farmers?
47. Would you like to know something more from research side? Do you need any training or any POP, leaflets from Biore research centre?
48. Would you like to participate in Model farms where you would showcase the practices and benefits of organic farming? Yes/No; do you have any ideas/ suggestions on how you prefer to gain exposure and learn more and share more understanding on organic farming?
49. What would incentivise in undertaking organic farming? Please share your thoughts on what would encourage you to take up organic farming.
  1. For example would an award for the best organic farmer incentivise; why
50. In case of natural calamities, how do you manage the situation?
  1. Floods
  2. Drought
  3. Pest attack
  2. What kind of support do you need at such instances?
51. How can farmers be empowered to continue organic farming? Can you please share any ideas.

## Farmer Participation

1. What are your views on Democracy? Do you think you as an individual have a say in the larger aspects of the society? What do you think is your role in the community? What is your understanding of participation?
2. Do you think women have a say in your family decision making processes? Is it participatory?
3. Do you want farmer representative in the BioRe system and how should the representation be?
4. What do you think is the importance of farmer participation in BioRe? Do you think there is participation in the bioRe system?
5. What do you understand of the 'farmer participation model' followed by BioRe?
  1. Do you know about structure of BioRe Association
  2. Are you happy with representation ? **Are you getting help or suggestions from the representative?**
  3. How can we strengthen the participation and association?
  4. If you have any other suggestions/ ideas then please share
6. What are your thoughts on Stakeholder Representative Body?
  1. Do you know the names of the people in the Board of the BioRe Association?
7. Do you actively participate at the cluster (local) level meetings,
  1. Who is your cluster level representative (CLR)? **Is he useful to you?**
  2. How often do you interact with the cluster level representative?
  3. Do you have a chance to voice your opinion in these meetings
8. Do you want to take engage/ participate in group committee like SRB, managing committee and be a member with full responsibility?
9. Do you know your village leaders who are representatives in the association body
10. How are you contributing in BioRe system right now? Please elaborate.
11. Do (Ask) the Woman in the household want to participate BioRe Association/ BioRe Family?
12. Do you want to train other farmers became a farmer trainer?
13. Do you want to participate in other crop production and selling other organic products?
14. Would you like to share any aspects/ needs that require attention in ?
15. Are you open to helping other farmers by sharing knowledge about organic farming?
  1. Are you willing to work in the farmers group?
16. Are you open to providing full participation in agriculture, trial, training etc without any compensation?
17. Without any remuneration are you willing to participate in any related activity
18. What according to you is the best way to encourage farmer participation in the various activities that are undertaken in BioRe for organic agriculture.
  1. What would incentivise you to participate in them
  2. **What is the best way to encourage women farmer participation in organic farming activities? (Because of 60-70% involvement) ; what time would be suitable in the day time? Ask the women in the household**

# Innovation

1. What are the various digital tools that are being used by you and your family on a daily basis ?  
(Through phone or laptop, the applications used for personal use and for documentation, data collection?)
2. What is your understanding of digitalisation?
  1. To what extent do you think is the importance of digitalisation in present scenario?
3. Do you know why digitalisation is necessary? Are you comfortable with digitalisation? What is benefit for you to digitise the data/ information ?
4. What are your actual challenges in applying digitalisation in your daily life?
5. What kind of support do you need to overcome the challenges ?
6. Are you interested in knowing the impact of POP (package of practices) followed by you in the field? This can be done through systemic capturing of data in at your level. Would you like to undertake this?
7. Do you want to analyse your farm data ? (income and all expenses and other aspects)
8. Would you want to know your future challenges ?
  1. What according to you are the future challenges in organic agriculture?
9. Are you glad to share information to digitalise that is accessible by all ? (or) Are you afraid of digitalisation ? if yes then why ?
10. Do you want to communicate the information to others ? if no then why ?
11. What do you think is the benefit of right (true) information sharing to others ?
12. Do you know that if you hide data /information means that you are not doing organic farming ?
13. Are you open to sharing/ disseminate your knowledge throughout the world for research purposes specifically?
  1. Do you want to help the researcher by providing true data for research projection ?
14. Do you feel that your information plays a major role in planning commission ?
  1. Your knowledge can also help the planning commission to make a plan/ proposal for agriculture, in that case would you like to share it?
15. Do you understand the kind of harm (loss) is done in case the data or information is hidden?  
Please share your thoughts on this.
16. Do you want to share data and actual information to prepare better training plan / programme?
17. Is someone stopping you/ asking you to hide the information? if yes then, who is that? and why ?
18. What are your thoughts on using technology for improving farm outputs ? Would you adopt technology? Why and why not?
19. What are your views on Whatsapp groups to share information? Apps for tracking? Tractors?  
Other initiatives on information and communication technology

# Health

1. Where do you access healthcare facilities in your community?
  1. Are there any health camps undertaken? How often is it ? How far is it from your house?
  2. Are there any doctors that visit your village on a regular basis?
  3. Are there any good primary healthcare centres in your village? Or are there any hospitals close by? How close (kms)
2. What are your requirements/ needs of your family in terms of healthcare facilities on a monthly basis
3. What is your immunity strategy for your household that keeps them away from health risks
4. Are you and your family covered under health insurance?
  1. What is the insurance scheme that you have adopted?
  2. Is it private or government? Please share the names.
5. What are the main health issues in the family ?
6. Are you aware of the Mobile Health Unit that is being run by BioRe Association?
  1. What is the closest point for you to access the bus?
  2. What is the distance from your house?
  3. How much time does it take to reach the bus? Is there local transportation available for you to reach easily?
7. Are you able to easily access the Mobile Health Unit (MHU) that is being provided by BioRe Association?
8. How many times have you gone to access that (MHU) facility ?
9. Are you receiving any information/ training pertaining to health on a regular basis?
10. Do you see any link between organic farming and health of the household?
  1. Do you consume your own produce
11. Do you have individual toilets in your house? Yes/No
  1. Which year did you build Individual toilets ?
  2. Are you still using the toilets?
  3. Septic tanks ?
  4. Are you facing any problems regarding the same? Any issues in specific seasons?
12. Did you access BioRe scheme to build the toilets
13. Do you have access to clean drinking water ?
  1. What is your source of drinking water?
    1. Do you have a well/ borewell from where you access water?
    2. Do you have water pipe connection from the government/ municipality/ panchayat ?  
Yes/No
  2. Do you face any issues during the summer months? Does the water get dried up?
14. Are you facing any challenges with physical infrastructure for water supply and sanitation? If yes then please elaborate?
15. Do the women have access to a private toilet and bathroom facility in your house?
  1. If no, then where do women go for their needs?

16. Are there any periods during the year that you have water supply related challenges? If yes then how do you address them ?

17. Regarding Biogas

1. What is your understanding of Biogas

2. Do you have Biogas installed in your house? If yes, which year? Did you receive support from bioRe Association

3. Are you currently using Biogas for cooking purposes?

4. What are the other options you have for cooking purposes? (For instance LPG cylinder, firewood etc.)

5. What according to you are the benefits of having a Biogas plant?

6. If you already do not have one then are you interested in setting up a Biogas plant?

7. Do you have access to water supply (what is the source?), a cow at home and space to set it up in your house?

18. What kind of support do you need in order to ensure good health for your family?

# Education

1. What according to you is the importance of education in the present scenario
2. What are your thoughts on education? Do you think it can transform the community? What is the meaning of education in your family?
3. What according to you are major problems in Rural area education system
  1. For instances - Dropping out of school
  2. Irregular attendance
  3. Quality of education
  4. Distance from the school/ location
  5. Girls education
  6. Economic issues
  7. Lack of support from family/ community (both parents are working and so no one to pick up/ drop and receive the child from school)
  8. Lack of interest among children
  9. Other aspects
4. Do you have any suggestions on how to address the rural area education system?
5. Who is the most educated person in your family? What is the education level? (primary school, 10th pass, 12th pass, college/ higher education)
6. How many people in your family are literate (those who can read and write), how many cannot?
7. Who is the decision maker in your family regarding decisions pertaining to education (for children, regarding the school etc)? Do women of the household have a say in this matter?
8. Do women also get educated in your family? Do they have a say in this matter?
9. What are the interests of the children? Please share.
  1. Are they into extracurricular activities?
10. Do your children have access to education
  1. Where do they go to school? How far is it? Mention distance in kms approx. How much time does it take for them to reach their school everyday?
    1. BioRe Animation School
    2. BioRe Public School
    3. Other (mention the name and is it private or government)
    4. ITI
    5. College ( Bachelors/ Masters; mention location and the stream)
11. About BioRe initiatives
  1. Are you aware of the Animation School that is being run by BioRe Association? Yes/No
  2. Are you aware of the BioRe Public School? Yes/ No
  3. Are you aware of the ITI/ Vocational training centre that is being run by BioRe Association? Yes/No
  4. Are you satisfied with the academic standards and the facilities provided?
  5. If no, then can you please elaborate on how can BioRe improve its services

12. How much fees do you pay for your children's education annually ? Is it affordable? Are you able to manage the costs?
13. Do they expect some more facilities (financial support in terms of scholarships, more capable schools like higher secondary level or colleges etc., any additional courses etc.)
14. What are your expectations/ requirement from education at various levels? What do you need as a family in terms of education? Please elaborate.
15. Has you child transitioned from BioRe animation school to BioRe public school? If yes, how has it been for the child? Please share your/ Childs experience so far.
16. What is the education level of the parents ?
  1. Mother
  2. Father
  3. Are they interested in studying at this point in their life? What kind of support do the parents need?
17. Do the parents play an active role in the children's education ?Do the parents have time to sit and teach the children/ help with homework? Do they encourage the children to do study at home?
18. What do you think is the role of the parents in the cooperation between the school and the education of their children?
19. Are the children having access to a tutor in case the parents are not able to give time?
  1. What kind of support does your child need in his/ her education besides the school
20. Are you helping children get good grades by providing essential/ other logistical/ infrastructural facilities (for instance a designated space for the child to study)?
21. Do you have any ideas of what must education cover in the current scenario of agriculture and climate change ?
22. Do you think it is important to teach the child aspects pertaining to agriculture/ farming? What are the important aspects that must be covered? (Soft skills for instance?)
23. What kind of skill development would you like to access in the Vocational training programme
  1. For instance ( tailoring, accounting/ financial management, plumbing, best practices of organic/ natural farming, entrepreneurship, others etc.)
24. How can the next generation be encouraged and empowered? What kind of education do you think they need? How should it be facilitated?

## Annexure 4: Coding in AtlasTi

Name	Comment
Dependence	aspects where the farmer is dependent on someone or something to further his work to address his needs
Income	Indicates the income sources and the level of income of the household
Decision making	finding the aspects where the farmer is having options where he can make decisions without any issues, also looks at aspects where there is involvement of the women and children of the family in key decision making avenues
Participation	Participation of the farmer in the local and organisational level decision making processes, also includes the awareness of the farmers in doing the same
Self - reliance	indicates the condition of the family in furthering their material development independently - also indicates the various complementary activities that is being undertaken to be self- reliant
About Premium	any and all quotes pertaining to Premium
Organic agriculture	Perspectives on organic agriculture by the farmers
Soil quality improvement	Any quote pertaining to soil quality
Cost effectiveness	Any quote implying cost effective strategy/ idea
About Land	Any or all comments on land quality linked with farming
Risks/ challenges in farming	quotes indicating risks and challenges in farming
Conventional Farming	Any or all quotes pertaining to practicing conventional farming
About Certificate	Those who are aware of the organic certificate
About women	cases where women support in farming
Potential Solutions	Any suggestions shared by farmers
About Seed Specifically	Any comment about seed and seed quality
Digitisation Openness	All about the views of digitisation
Other Problems	Problems related to Health and Education specifically shared by the farmer
Entrepreneurial ideas	All idea/ suggestions shared by the farmer

## **Annexure 5 : bioRe sustainable cotton standard**



# **bioRe® Sustainable Cotton Standard**

**for**

**Contract producers  
in India and Tanzania**

**Version 2017**



## Foreword

The bioRe® Foundation is owner of the trademark bioRe® and is scheme owner of the *bioRe® Sustainable Cotton Standard* which was developed in close collaboration with its core stakeholders, the smallholder cotton farmers and the bioRe® organisations in India and Tanzania as well as Remei AG, which is the founding partner and main customer of bioRe® Sustainable Cotton.

The *bioRe® Sustainable Cotton Standard* is the quintessence of bioRe's sustainability performance and commitment towards small contract producers in India and Tanzania. Unlike any other social system which endeavours reconciliation between economic interests and social enhancement, the project's unique features along with its pioneering spirit promoted the benchmarking of bioRe's social system into a recognized standard system.

The endeavour was also to anchor the bioRe® sustainability system on methodological grounds. By setting it into a recognized standard system, the sustainability system has become socially accountable, hence auditable and verifiable. The objective assessment and verification by an independent body was indispensable for the standard's acceptance and recognition.

The development of the *bioRe® Sustainable Cotton Standard* was commissioned to FLO-Cert, the most renowned and only internationally accredited social certification body, for its expertise in social standard settings.

## Scope

The *bioRe® Sustainable Cotton Standard* currently applies for contract producers in India and Tanzania affiliated to the respective bioRe® organisations. The standard contains social and environmental criteria with regard to cotton production, based on organic cotton being addressed by organic certification schemes which are successfully adhered to. Social development and environmental excellence focus on the socioeconomic improvement of cotton farmers' and workers' livelihoods. The framework is based on a human rights based approach, enhancing effective and right-based participation of beneficiaries and the fulfilment of human rights. The scope includes agriculture and the first processing which is the ginnery, producing cotton lint.

## Standard Operational Procedures

The Standard Operational Procedures are described in the separate SOP Manual for the *bioRe® Sustainable Cotton Standard*.

### **Quality label bioRe® Sustainable Cotton**

bioRe® Foundation is the owner of the trademark bioRe® and defines the standards for *bioRe® Sustainable Cotton* and *bioRe® Sustainable Textiles*. It has licensed Remei AG to use the labels bioRe® Sustainable Cotton and bioRe® Sustainable Textiles on their products and to provide it to its clients through contracts. The signed contracts between Remei AG and its clients specify the use and communication about the bioRe® labels. They may only be used if formally agreed in the contract and according to the separate brand design manual.

## **0.1 Structural requirements**

- 0.1.1 The organisation develops an internal management system for the bioRe® sustainable cotton standard.
- 0.1.2 Each satellite is verified separately, either against the full standard or a development plan which complies in minimum with the standard.
- 0.1.3 Each project, both non-satellite and satellite, is certified against EU 834/2007 organic regulation.

## **1.1 Market Price**

- 1.1.0 The organisation has a written policy on quality-based price setting mechanism.
- 1.1.1 The organisation pays individual member farmers the local market price for organic cotton produced in cotton qualities as specified in the farmer's contract. Where there is no market price, the organisation pays the average of all prices indicated in a village. If the village price is below average of all villages, the price will be increased to the average. The closing market price of the previous day is the relevant price.
- 1.1.2 Price information and price setting are verifiable through objective means.
- 1.1.3 The farmer is informed about the policy on quality-based price setting mechanism.
- 1.1.4 The payment of cotton is paid in cash at the purchase point or by cheque within three days of the purchase. Satellites may alternatively adopt payment terms exceeding 3 days.
- 1.2.1 Where there is no fixed price for a specific category, and prices vary along the price range and within the categories, the organisation develops a quality system by linking quality criteria and prices. Quality differentiation should be appropriately documented.

## **2.1 Premium**

- 2.1.1 The organisation pays a premium per kg of seed cotton (cultivated according to EU 834/2007 and produced in cotton qualities as specified in the farmer's contract) to all farmers. The premium for full organic cotton is based on a minimum of 15% of the average price over the past five years.
- 2.1.2 Changes to the premium amount and formula alterations are formally approved by the Producer Representative Body.
- 2.1.3 The premium management is transparent to all farmers.
- 2.1.4 The organisation administers and manages the premium transparently and uses it in line with the requirements outlined in these standards.
- 2.1.5 For farmers of satellite projects (independent farmer organisations), the premium payment from bioRe organisation is made to the farmer organisation and not to individual farmers.

### **3.1 Purchase Guarantee**

- 3.1.1 Procure a long term and stable relationship with the buyer.
- 3.1.2 The farmer receives a 5-year purchase guarantee for cotton, 80% of the total basis or 80% of the basis of estimated volumes.
- 3.1.3 The organisation provides transport free of charge.
- 3.2.1 For farmers of satellite projects (independent farmer organisations) there is no purchase guarantee. The quantity of cotton from satellite projects is agreed prior to each season.
- 3.3.1 The purchase guarantee is valid for agreed quantities between the buyer and producers of bioRe sustainable cotton in February of each year.

### **4.1 Quality Training**

- 4.1.1 The organisation has a written policy on quality training.
- 4.1.2 The organisation provides quality training on the principals and methods of organic farming on an annual basis and free of charge.
- 4.1.3 Records on quality training are sufficient to allow for a proper verification.
- 4.2.1 Family members are encouraged to attend training on organic farming.
- 4.2.2 A quality management system has been developed and documented.

### **5.1 Advisory Service**

- 5.1.1 The organisation has a written policy on advisory service.
- 5.1.2 The organisation provides regular advisory service on organic farming and related subjects free of charge.
- 5.1.3 Advisory service is provided by a professional extension team.
- 5.1.4 Records on advisory service are sufficient to allow for a proper verification.
- 5.2.1 A quality management system has been developed and documented.

### **6.1 Individual Loan Schemes**

- 6.1.1 Loan schemes are accessible to farmers and actively promoted by the organisation. It has defined a policy for this purpose.
- 6.1.2 A person within the organisation is given responsibility for ensuring the management of operational purposes of loan schemes.
- 6.1.3 The administration of the input loan scheme is transparent to the farmer and participatory when it comes to premium usage.
- 6.1.4 There are separate and transparent accounting systems in place for the management of the existing individual loan schemes

- 6.2.1 A system of gradual empowerment allows semi-organized producer groups to build the necessary skills to manage the operational loan scheme on their own. (Applies only for bioRe® India)

## **7.1 Community Project Development**

- 7.1.1 The organisation is actively promoting Community Project Development and has defined a policy for this purpose.
- 7.1.2 A person within the organisation is given responsibility for ensuring the management of Community Project Development.
- 7.1.3 A work plan and budget are available, preferably as part of a general work plan and budget of the organisation.
- 7.1.4 The application and decision-making process follows internal regulations and is properly documented.
- 7.1.5 The organisation has transparent and efficient management systems in place for Community Project Development.
- 7.2.1 The community within the operational area is informed about the existence of development programs.
- 7.2.2 Community development programs are accessible to all communities and they actively participate in the definition and decision-taking.
- 7.2.3 The sustainability and progress of community projects is monitored and documented.

## **8.1 Farmer Participation**

- 8.1.1 The relationship between farmers and the organisation has been formalised.
- 8.1.2 The organisation has started to work with mechanisms of farmer representation.
- 8.2.1 A representational body and mechanisms have been developed which guarantee representation of each farmer.
- 8.2.2 The system of information flow has become operational within the institutional set-up.
- 8.2.3 The organisation has developed a Human Development Plan.
- 8.3.1 The organisation is implementing a human rights-based approach.
- 8.3.2 A person in the organisation is given responsibility to promote human rights education and to implement the human rights-based approach in the organisation.
- 8.3.3 There is a joint evaluation of the progress to implement the human rights-based approach.
- 8.3.4 Farmers are informed about the processes of participation.

## **9.1 Economic Impact**

- 9.1.1 Short and medium-term outcomes and long-term impacts of business strategies on Economic Strengthening of the Organisation are clearly defined.
- 9.1.2 A person within the organisation is given responsibility for ensuring regular monitoring and evaluation of business strengthening strategies.
- 9.2.1 The organisation will work towards the strengthening of its business related strategies.
- 9.2.2 The producer organisation is becoming more autonomous on commercial and financial grounds and contributes to the economic improvement of the farmers.

## **10.1 Non-discrimination**

- 10.1.1 The majority of the members of the organisation are small producers.
- 10.1.2 Of every bioRe - certified product sold by the organisation, more than 90% of the volume must be produced by small producers.
- 10.1.3 If the organisation restricts new membership, the restriction may not contribute to the discrimination of particular social groups.
- 10.2.1 Programs related to identified disadvantaged/minority groups within the organization are in place to improve the position of those groups in the organization, particularly with respect to recruitment, staff and committee membership and community projects.
- 10.2.2 Appropriate measures are being taken to ensure participation, representation and membership of women growers.
- 10.3.1 Measures are taken to support inclusion.

## **11.1 Labour Laws**

- 11.1.1 Children are not employed (contracted) below the age of 15.
- 11.1.2 Working does not jeopardise schooling or the social, moral or physical development of the young person.
- 11.1.3 Forced labour, including bonded or involuntary prison labour, does not occur.
- 11.1.4 There is no discrimination made on the basis of race, caste, national origin, religion, disability, gender, sexual orientation, union, membership, political affiliation or age in recruitment, remuneration, access to training, promotion, disciplinary measures, termination or retirement.
- 11.1.5 Management recognises in writing and in practice the right of all workers to establish and to join worker's organisation of their own choosing and to collectively negotiate their working conditions.
- 11.1.6 If no active and representative union exists on the company's site, all the workers shall democratically elect a workers' committee, which represents them and negotiates with management to defend their rights and interests.

- 11.1.7 Salaries for workers employed by the organisation are in line with or exceeding sector Collective Bargaining Agreement, regional average and official minimum wages for similar occupations. The employer will specify wages for all functions.
- 11.1.8 Workers are aware of their rights and duties, responsibilities, salaries, and work schedules.
- 11.1.9 Payment must be made regularly and in legal tender and properly documented.
- 11.1.10 Deductions in salaries are only made as agreed by national laws, as fixed by a Collective Bargaining Agreement or if the employee has given his/her written consent.
- 11.1.11 An adequate sick leave regulation is put in place.
- 11.1.12 A working hours and overtime regulation is put in place.
- 11.1.13 The organisation is providing a healthy working environment and is taking adequate steps to prevent accidents or injury to health.
- 11.1.14 The following persons are not allowed to work with the application of pesticides: persons younger than 18 years, pregnant or nursing women, persons with incapacitated mental conditions; persons with chronic, hepatic or renal diseases, and persons with diseases in the respiratory ways.
- 11.1.15 The company ensures that safety equipment is provided to all workers and that they are instructed and monitored in its proper use.
- 11.1.16 Workers (including new and reassigned workers) and their representatives are trained in the basic requirements of occupational health and safety, relevant health protection and first aid. Special measures are in place in the H & S Policy to identify and avoid reoccurring health risks to vulnerable workers operating in high risk areas.
- 11.1.17 The company provides first aid facilities, equipment and trained first aid staff to meet all reasonably foreseeable emergency first aid situations.
- 11.1.18 All workers must have access to potable water and clean sanitary facilities.
- 11.1.19 All indoor workplaces have adequate ventilation for the work to be carried out in the context of local weather conditions.
- 11.1.20 Fire exits, escape routes, fire fighting equipment and fire alarms are provided for every indoor workplace.
- 11.1.21 Electrical equipment, wiring and outlets are placed, grounded and inspected for overloading and leakage by a professional on a regular basis.
- 11.2.1 Among the workers' representatives, a person must be nominated who can be consulted and who can address health and safety issues with the organisation.
- 11.2.2 The organization has implemented a Management System for SA8000 and is regularly reviewing the social policies and labour laws.

## **12.1 CO<sub>2</sub> Compensation projects**

- 12.1.1 CO<sub>2</sub> compensation projects have a direct benefit on the project executors and are socially sustainable.
- 12.1.2 The offsetting programme and compensation projects are well documented.
- 12.1.3 The organisation makes sure that each unit of each compensation project is clear identifiable.
- 12.1.4 The organisation monitors and documents each compensation project according to functionality and carbon emission relevant issues of the square root of beneficiaries.
- 12.1.5 The beneficiaries of compensation projects are informed about the environmental benefit.
- 12.1.6 A person within the organisation is given responsibility for ensuring the monitoring of compensations projects.
- 12.1.7 The organisation has implemented a management system for maintenance of compensation projects